

19980216.qrp v01_n003.qrs.980216

Date: Mon, 16 Feb 1998 19:03:18 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 1003

QRP-L Digest 1003

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- 3) [3907] 20 mobile
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- 4) [3908] RE: QRM from RTTY
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- 5) [3909] QRP in the Mountains...
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by "Kelly Ellison" <kelman@dialnet.net>
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- 13) [3917] NorCal QRPTTF '98 "Run for the Border"
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- 14) [3918] Re: PV-powered battery chargers
by LYN WILLIAMS <designserv@ipass.net>
- 15) [3919] MFJ CWF-2 Audio Filter
by David Gauding <david.gauding@bbs.galilei.com>
- 16) [3920] Qrp DX
by Jay Bromley <w5jay@cei.net>
- 17) [3921] Re: PV-powered battery chargers
by Monte Stark <ku7y@dri.edu>
- 18) [3922] re: ZM-2 Tuner Images (Recently Update my URL)
by Chuck and Michele Snyder <csnyder@nextdim.com>
- 19) [3923] Re: FOUND! RS #22-305 freq. counters - still on shelf

- by David Adams <adamsclan@netgate.net>
- 20) [3924] Scope: new or used?
by PGSPersEng@aol.com
- 21) [3925] Re: FOX:Results Sat N/t Fox, W2MBY
by DMRAWSON@aol.com
- 22) [3926] Re: QRP in the Mountains...
by Bruce Muscolino <w6toy@pop.erols.com>
- 23) [3927] bipolar steppers
by "JUNIUS B FOX" <w5hir@gte.net>
- 24) [3928] Kit or plans for a 6 meter amp
by Gary Chevalier <gchevalier@isi.com>
- 25) [3929] Re: Scope: new or used?
by LYN WILLIAMS <designserv@ipass.net>
- 26) [3930] 30 meter SST for sale
by "Jeff M. Gold" <JGold@tntech.edu>
- 27) [3931] Centenial 20 meter
by "Jeff M. Gold" <JGold@tntech.edu>
- 28) [3932] Re: Scope: new or used?
by Chris Trask <ctrask@primenet.com>
- 29) [3933] Re: Scope: new or used?
by "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
- 30) [3934] Re: 20 mobile
by "Frank A. West" <ke6vhm@earthlink.net>
- 31) [3935] Wanted Diodes, SPICE models
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 32) [3936] 1995 handbook, sierra
by rspenc@creighton.edu
- 33) [3937] 10X Probe
by Stephen Gibson <SWGibson@worldnet.att.net>
- 34) [3938] KnightLite Net 2/15/98
by Randy Hargenrader <randyh@harksystems.com>
- 35) [3939] RE:QRM from RTTY
by af852@rgfn.epcc.Edu (William R Colbert)
- 36) [3940] WWV controlled Clock Movement: \$ 28.95
by Brian Kassel <bkassel@dancris.com>
- 37) [3941] Re: 1995 handbook, sierra
by Dave Sjolin <sjolin@swbell.net>
- 38) [3942] elmer101: rf probe
by "Rattray, Bruce" <Rattray@siast.sk.ca>
- 39) [3943] Re: 1995 handbook, sierra
by Thomas Isgro <kc8dgu@postoffice.worldnet.att.net>
- 40) [3944] Re: QRP in the Mountains...
by "Ray Lowe" <wd5dhk@hotmail.com>
- 41) [3945] Re: WWV controlled Clock Movement: \$ 28.95
by "Michael Fletcher" <kl7ixi@mailcity.com>
- 42) [3946] elmer101: FAQ is up
by Michael Maiorana <mikemo@ibm.net>
- 43) [3947] Re: Ade's Article

- by Bill Todd <bill@willapabay.org>
- 44) [3948] Re: QRM from RTTY
by Dave Sjolin <sjolin@swbell.net>
- 45) [3949] Re: 1995 handbook, sierra
by "John A. Evans - N0HJ" <jae@codenet.net>
- 46) [3950] Sierra Transmit Power
by Derek Brown <DBrown@RFMD.com>
- 47) [3951] January MI QRP Club Contest Results
by Hank Kohl K8DD <k8dd@contesting.com>
- 48) [3952] Re: elmer101: FAQ is up
by Andy Fox <foxes@theriver.com>
- 49) [3953] Alaskan milliwatts ...
by "Georgia Raynsford" <raynsford@gci.net>
- 50) [3954] Elmer101: SPICE pointers
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 51) [3955] FOX TONIGHT!!
by Tim Ahrens <tahrens@inetport.com>
- 52) [3956] FOXHUNT Schedule 2.0
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 53) [3957] Re: Scope: new or used?
by "Michael A. Gipe" <mgipe@reliablemeters.com>
- 54) [3958] Re: WWV controlled Clock Movement: \$ 28.95
by Roger Hightower <n7kt@earthlink.net>
- 55) [3959] FOX: N/T Fox Resched 20 Feb UTC - N0GLM
by "Buck, Preston D" <BuckPD@corning.com>
- 56) [3960] Removing nail polish from toroids?
by "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
- 57) [3961] RE: Scope, new or used...?
by Conrad <radman@best.com>
- 58) [3962] Re: QRM from RTTY
by af852@rgfn.epcc.Edu (William R Colbert)
- 59) [3963] Re: QRP in the Mountains...
by W7LS <w7ls@blarg.net>
- 60) [3964] Test equip.
by "Caro, Carlos" <carlos.caro@lmco.com>
- 61) [3965] Re: Knightlite SMiTe
by KB90CE@aol.com
- 62) [3966] Re: QRP in the Mountains...
by W7LS <w7ls@blarg.net>
- 63) [3967] Re: elmer101: FAQ is up
by wa8rxi@juno.com (Rick Arzadon)
- 64) [3968] Re: Removing nail polish from toroids?
by wa8rxi@juno.com (Rick Arzadon)
- 65) [3969] Ten-Tec group purchase order to be placed tomorrow
by "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
- 66) [3970] Re: Knightlite SMiTe
by LYN WILLIAMS <designserv@ipass.net>
- 67) [3971] RE: Removing nail polish from toroids?

by Kevin Muenzler <wb5rue@stic.net>
68) [3972] Re: FOX humble pie
by "Michael A. Gipe" <mgipe@reliablemeters.com>
69) [3973] Re: QRM from RTTY
by Dave Sjolin <sjolin@swbell.net>
70) [3974] 160M 100mW Beacon Summary
by Paul Stroud <aa4xx@ipass.net>
71) [3975] Re: QRP in the Mountains...
by Joe Gervais <vole@primenet.com>
72) [3976] Elmer101: FAQ is up
by Bob Bayha <rbayha@ix.netcom.com>
73) [3977] Re: Scope: new or used?
by k6hcj@juno.com (Marv Fagenson)
74) [3978] Re: FOX humble pie
by Tim Pettibone <tpettibo@NMSU.Edu>
75) [3979] Sam's Photofacts
by Bruce Muscolino <w6toy@pop.erols.com>
76) [3980] Re: elmer101: rf probe
by Bruce Muscolino <w6toy@pop.erols.com>
77) [3981] Chuck's Spice Pointers
by Al Moyle <moyle@essc.psu.edu>
78) [3982] Dayton Hamvention - Days Inn South Rooms.....
by Hank Kohl K8DD <k8dd@contesting.com>
79) [3983] Elmer 101: RF Probe Output Impedance value
by ji3m@maxwell.com (James R. Duffey)
80) [3984] Re: WWV controlled Clock Movement: \$ 28.95
by Phil <k6ls@prolynx.com>
81) [3985] New Product Announcement
by "Marshall Emm" <mgemm@mtechnologies.com>
82) [3986] RE: QRP in the Mountains...
by Andreas Junge <andreas@atltech.com>
83) [3987] HF Mobile Antennas (Long)
by nq2rp@juno.com (B/BAMS Club Station)
84) [3988] K0FRP Contest Handicap
by AlK0FRP@aol.com
85) [3989] Re: FOX humble pie
by "George Edwards" <gedwards@OnRamp.NET>
86) [3990] Re: QRM from RTTY
by Vic Rosenthal <rakefet@rakefet.com>
87) [3991] Re: QRM from RTTY
by n7mfb@juno.com (Bill Todd)
88) [3992] The NorCal Version of the Herring Aid 5 LIVES!!
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)

Date: Sun, 15 Feb 1998 06:07:53 -0600
From: "Bruce Barley" <lbbbarley@feist.com>

To: <qrp-1@Lehigh.EDU>
Subject: [3905] New Lead-Free Solder coming to market
Message-ID: <199802160008.SAA05170@wichita.fn.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

In the February, 1998 issue of American Machinist (a manufacturing technology trade publication), an article in the "Technology Trends" column on pg. 16 reports that the Ames Laboratory at Iowa State University has come up with a new lead-free solder alloy (Sn,Ag,Cu). The article says this alloy was developed in light of the growing trend to "discontinue the use of Tin-Lead (Sn,Pb), which currently is the industry norm." Additional concerns are expressed about the known bio-hazard posed by lead in the environment. This solder is reportedly of high tensile strength, with Detroit looking seriously at increased use of it in "under the hood" applications. The article goes on quoting Iver Anderson, a metallurgist working at Ames in the U.S. Dept. of Energy's Laboratory at ISU. Nothing was said specifically about the melting point of this new "high-temperature high-strength" solder. With copper and silver as key components I would expect it to be rather elevated. Hmmm. Maybe Warren Buffet knew something, after all ! Maybe the Hunt brothers were just a bit early...

Does anyone know anything about this solder? Are we going to be able to use it for PCB construction... especially with surface mount components?

The article concluded by stating that Multicore Solders (big plant in TX) has signed a licensing agreement to produce and market lead-free solder based on an Ames patented composition. Information, anyone?

Bruce KB0PZD qrp-1 # 69
lbbarley@feist.com

Date: Sun, 15 Feb 98 08:25:09 PST
From: gregoire@endor.com
To: barb@quadj.com, Low power amateur radio discussion <qrp-1@Lehigh.EDU>
Subject: [3906] RE: Your Opinion Please
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; CHARSET=us-ascii

<<Any other comments/suggestions relating to QRP.>>

Sure, just fly me and the XYL down there and pay for the hotel, and I'd be happy to pass out those brochures. ;-)

BTW the temp here was -5.4 this morning and the car would not start.

73

de AA1IK, Time the accursed enemy of man,
Ernie Gregoire cursed youth for going to slow
 and by the old for going to fast.

R.R. 1, Box 221,
South Rd. Fists # 2644, ARCI # 9500
Canaan, NH. 03741 QRP-L # 95, Fly fisher & tier,
 Promise Keeper.

E-mail address: gregoire@endor.com

packet address: AA1IK@WA1WOK.FN43FE.NH.USA.NA

02/15/98 08:25:09

Date: Sun, 15 Feb 1998 18:15:18 -0700
From: tom whalen <whalen@swcp.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3907] 20 mobile
Message-ID: <34E79326.3B63@swcp.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello Fellow Qrpers!

I posted last week that I was operating mobile to work everyday on 20 meters. I was reminded to state the time in UTC....guess I failed!

Anyhow, if anyone can get on 14.060 starting at 2050 till about 2120 UTC, I will try to work you.

I use a straight key with either my converted CB, or my Emtech 20.

Antenna is a homebrew 8' center loaded whip on the back bumper.

Few inquiries about the converted CB. It was converted by a local ham that is an engineer. Sharp fellow and he did a good job. Covers the whole band and does cw and ssb both.

He said he wants to convert a cb to 40meters next and I may donate one that I picked up at a garage sale. I will see if I can get all the dope on the conversion and share it with this group.

I think everyone would be interested in a 40 meter cw/ssb rig for probably peanuts!

I believe I have all the conversion dope for the 15 and 20 meter rigs, but will have to get the time to go through it before I turn it loose to the group.

So, the next time you go to a garage sale, don't overlook ANY of the 40 channel ssb type rigs...Could be your next 20 meter rig!

Sams photofacts are a must for the conversions, and I have them for the following rigs as info. Realistic model trc-448, Royce model 1-632. Im sure with all the people on this list we can all share our photofacts and save some bux.

Ten meters is opening up soon and thats a good band to convert a cb rig.

Have not heard much from the people that were hot on the cb conversions lately. Guess its like everything else, it comes and it goes!!

72, Tom WB5QYT...." Have spud will travel!"

Date: Sun, 15 Feb 98 20:26:41 PST

From: gregoire@endor.com

To: D2250077@infotrade.co.uk, Low power amateur radio discusion <qrp-1@Lehigh.EDU>

Subject: [3908] RE: QRM from RTTY

Message-ID: <Chameleon.980215211449.GREGOIRE@Gregoire.endor.com>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

Hello John and Gang,

QRM from RTTY is not always a bunch of good ole boys

just having fun as Ron suggests.

I was on 15 meters this Saturday trying to complete a qso QRP to QRP when a didgi-dweeb zero beat me off the frequency.

Do not try to tell me it was not intentional!
It was!

The band was open, there was only one, count them only uno, other signal on the cw sub-band, and it was a CW sig.
I was dead on 21.060 working AH7R.
After the QRM, he (the jammer) went away
and did not transmit again anywhere on the band.

Why, did he stop?
Because I QSY'd up 2KHz. to finish the QS0.

When I stopped, he stopped.

I also do RTTY, I thought of starting the RTTY program and trying to get a call sign, but I chose not to.

I don't want to be a band cop, I didn't even mention it when reporting the great qsos with KH6 land.

My point is this:

The world is a big place and there are lids out there.
As much as I disliked being jammed, I did not let it spoil my day or the QS0.

I can't stop folks with that kind of mentality.
I must work around them if I want to continue to be QRP in spirit as well as in power output.

Last year a guy with a vacuum for a brain jammed the Fox Hunt on several separate occasions.
He followed the Fox and QSY'd when the fox QSY'd.
He stopped jamming when the Fox Hunt ended.

I know, I was the Fox.

de AA1IK, Time the accursed enemy of man,
Ernie Gregoire cursed youth for going to slow
 and by the old for going to fast.

R.R. 1, Box 221,
South Rd. Fists # 2644, ARCI # 9500
Canaan, NH. 03741 QRP-L # 95, Fly fisher & tier,
 Promise Keeper.

E-mail address: gregoire@endor.com

packet address: AA1IK@WA1WOK.FN43FE.NH.USA.NA

02/15/98 20:26:41

Date: Mon, 16 Feb 1998 13:24:27 +1000
From: lenriquez@pacific.simoco.com (Luke Enriquez)
To: qrp-l@Lehigh.EDU
Subject: [3909] QRP in the Mountains...
Message-ID: <00008A4A.4068@pacific.simoco.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Description: cc:Mail note part

G'day All,

What types of Antennas do people use for QRP in the mountains. I've made two twips in the last 3 weeks and had miserable results. The first trip I had no contacts. The second I had one contact on 40M. I'm using a modified SLV (raised, coax fed) and tuned radials. I've been trying 20M and 40M, but with no luck.

My best results with QRP have been on a wire inverted-V on 80M, in a valley near a river. Maybe my poor results are due to being over 1000 meters above sea level and operating from terrain with steep slopes. Either the loading coil on the SLV is too lossey (yes I know someone emailed me saying get rid of the coil and use a twin-lead feed, by my ZM-2 hasn't arrived yet) or the radiation angle is not suitable. Should I be using a dipole, since conditions are not suitable for constant QRP DX contacts??

This is really frustrating (but sometimes thats QRP).....

Regards,

Luke

Date: Sun, 15 Feb 1998 20:57:10 -0600 (CST)
From: "Phillips Richard" <phillips@msoe.edu>
To: John Anthony Reynolds <D2250077@infotrade.co.uk>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3910] Re: QRM from RTTY
Message-ID: <Pine.OSF.3.96.980215204555.14620A-100000@torres.msoe.edu>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I enjoy qrp but I got hooked on the rtty thing this weekend. First rtty contest I ever entered and it was a blast. Most of the time I operated qrp due to antenna limitations. I did notice that no operation was allowed on 30, 17 and 12 meters. I myself have not operated these bands (hope to in the future) but, perhaps this would lower your frustration level when trying to operate qrp-dx during a contest. I don't know how feasible this would be, just a suggestion.

Richard Phillips
Lab Technician
Milwaukee School of Engineering
414-277-7388, phillips@msoe.edu

Date: Sun, 15 Feb 1998 22:46:44 EST
From: Shephed@aol.com
To: qrp-1@Lehigh.EDU
Subject: [3911] N/T+ Fox for 2/16/98 :-(
Message-ID: <1c21719b.34e7b6a6@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Sorry folks, I had to bail out on the Fox hunt tonight at the last minute. I had a server crash at work, and duty calls.

I would like to do a make up on 2/18/98 at 0000Z to 0200Z, that's this Tuesday night at 7:00 to 9:00 EST. This is my last scheduled hunt as a N/T+ Fox. I will work around 7.140+/- at 5 Watts, rig is a Yaesu FT-101EX into a Hygain vertical.

This will be your last chance to get me as a N/T+.

72, 73
Dan, N8VZU/AG
QRP-L #1404

Date: Sun, 15 Feb 1998 22:51:01 EST
From: Shepherd@aol.com
To: qrp-l@Lehigh.EDU
Subject: [3912] N8VZU/AG
Message-ID: <6cb9589d.34e7b7a7@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I want to thank each of you that sent me a note about my upgrade to General, I must have gotten over 50 E-mails!

You all had kind comments, and made me even prouder to be a member of the QRP-L group. This has to be the friendliest, and greatest group of Hams around.

72, 73, and God bless you all.
Dan, N8VZU/AG
QRP-L #1404

Date: Sun, 15 Feb 1998 22:25:35 -0600
From: "Kelly Ellison" <kelman@dialnet.net>
To: <qrp-l@Lehigh.EDU>
Subject: [3913] FS or TRADE QRP Rigs
Message-ID: <199802160423.WAA26076@shell.dialnet.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi All,

I have some pretty nice radios to put on the selling/trading block...

S&S Engineering TAC-1 (80 meter) in New Condition - \$190.00

S&S Engineering ARK20 with keyer in New Condition - \$200.00

Timewave DSP9 Filter - \$75.00

I am looking for Trades of ARK40, TAC-1 40 meter unit, an Argosy Analog w/filters, or other neat QRP goodies. If you are interested in the above items, let me know. Thank you.

Kelly Ellison
WB0WQS
QRP-L #702
kelman@dialnet.net

Date: Sat, 14 Feb 98 23:45:42 PST
From: "Robert H. Sorge" <rsorge@phoenix.net>
To: qrp-l@Lehigh.EDU
Subject: [3914] Freq - RS 22-305 HiZ Probe Construction?
Message-ID: <Chameleon.980214235158.rsorge@phoenix.net.phoenix.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I was able to get one of the RS #22-305's. Now I need some help making a good RF probe for use with the HIZ function. Anyone have something in mind?

Name: Robert H. Sorge - KC5FMZ QRP-L#910,NORCAL#793,ARCI#96033
E-mail: rsorge@phoenix.net
Date: 2/14/98
Time: 11:45:42 PM

Date: Sun, 15 Feb 1998 23:50:15 -0800
From: LYN WILLIAMS <designserv@ipass.net>
To: boice@bigfoot.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3915] Re: PV-powered battery chargers
Message-ID: <34E7EFB7.8EF771E0@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The Boices wrote:

> Does anyone here have one of those PV panel-automobile battery trickle
> chargers? You know, the ones that you lay on the dashboard, and plug into
> the cigarette lighter, designed to keep an battery alive for long periods
> of inactivity? I've got a 5.5W PV panel that I plan to use for running the
> Sierra, but thought about using it for automobile battery trickle charging
> at other times. I thought I'd put a molex-type connector on the panel to
> use it for multiple purposes.
>
> I'm curious as to what electronics or regulators (if any) these units use.
> Or can an automobile battery be safely "trickle" charged at up to 375 mA
> (the output of my panel)?
>

Mike,

I'm not familiar with the lay-on-the-dash panel you are mentioning, and don't know whether your particular panel has any regulator. Since you haven't told us the output voltage at 375 ma - or the maximum output voltage - and haven't told us the type and capacity of the battery you are using, all we can do is to discuss general principles. Remember that the manufacturer's recommendations for your particular battery take precedence over these general guidelines, since batteries DO differ!

First, a lead acid battery is going to generate lots of gas anytime the charging voltage gets up near the gassing voltage of 2.37 volts per cell (varies with temperature), which comes out to 6 times 2.37=14.22 volts for a "12 volt" battery. A wet cell (one with removable filler caps) can stand this for a little while, if the water level is not allowed to get down to where the plates get uncovered ANY. With a sealed type of battery it is best to keep the charging voltage down below 14.10 volts. IMPORTANT: this doesn't mean you can leave it there for any length of time! Proper charging of a lead acid battery requires 3 or 4 different stages which can let the voltage get up to 14.10 under certain circumstances which are beyond the scope of a discussion of trickle-charging.

If you plan to keep a continuous small charge on the battery it is best to follow the manufacturer's recommendation; but if you can't get that information, then supply no more current than .05% of the ampere-hour rating of the battery and monitor the battery voltage to make certain it stays in the range 13.2 -13.8 volts.

73,
Lyn, W4WDN

Date: Sun, 15 Feb 1998 22:58:47 -0600
From: "Roger Whitaker [K9LJB]" <k9lj@iname.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3916] Problem with QRP-l listserver ???
Message-ID: <34E7C785.F124918F@iname.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have received only four messages today. Is this a quiet day on here or what???

--
Roger B. Whitaker K9LJB QRP-l #1403

Remember it's nice to be important,
but it's more important to be nice.

Home page: <http://www.cityscape.net/~whitaker/>

Date: Sun, 15 Feb 1998 22:17:27 -0700
From: wa5whn@juno.com
To: qrp-l@Lehigh.EDU
Cc: vole@primenet.com
Subject: [3917] NorCal QRPTTF '98 "Run for the Border"
Message-ID: <19980215.221736.2822.0.wa5whn@juno.com>

qrp-lers,

<http://www.swcp.com/~n5zgt/n4c/> {Check out this web site, since we have photos posted of the 4 Corners area}.

As NA5N {3 Corners & 2 Countries Crew} had stated, we {Az. & NM Ops} will be operating from the 4 Corners area {Utah, NM, Co. & Az.}. Also, the boundary of the Navajo & Mountain Ute Tribes.

AB7TT {vole@primenet.com} will be posting to the QRP-L, the upcoming rules for this event.

Get out those maps, and find a border to operate from.

Anyone operating from Border, Mn. or Border, Wyo. ? ;-)

Hmmm, I think I will have my Border Collie accompany us for this event.
;-)

It can not get any better than this People.

72...Jay, WA5WHN DM65qd Albuquerque, NM
USA

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Date: Mon, 16 Feb 1998 00:10:46 -0800
From: LYN WILLIAMS <designserv@ipass.net>
To: boice@bigfoot.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3918] Re: PV-powered battery chargers
Message-ID: <34E7F486.22E0D8E5@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Mike,

One more comment: Battery voltage measurements should be made with a good digital meter with a resolution of ten millivolts (.01 volts) and an accuracy of 0.2%. Since the voltage of a rested fully discharged battery (no charging or discharging in the last 24 hours) is about 11.7 volts, and the voltage of a rested fully charged battery is about 12.7 volts, you can see that an analog meter just doesn't cut the mustard.

73,
Lyn, W4WDN

Date: Sun, 15 Feb 1998 23:19:22 -0600
From: David Gauding <david.gauding@bbs.galilei.com>
To: qrp-l@Lehigh.EDU
Subject: [3919] MFJ CWF-2 Audio Filter
Message-ID: <1.5.4.32.19980216051922.006b8668@bbs.galilei.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Gang,

I love these things and buy every one I find at a hamfest! Over the years have used them routinely with old Argonauts, HW-8 and homebrew gear. Inserted before the AGC in the Argo's it is even better than the Ten-Tec 208 filter, and that's saying a lot! The bandwidth positions (0, 180 hz, 110 hz and 80 hz) offer great flexibility on both SSB and CW. Performance in the 80 hz setting is absolutely grand!

The St. Louis QRP Society (with the kind assistance of Martin Jue) kitted the CWF-2 in 1990 and again in 1994. The secret to the superb performance is very close matching of the capacitors and resistors as practiced by MFJ.

The old LM747 op amps are a little noisy but the quality of the filtering makes up for it easily! The CWF-2 seems more efficient on 12V but that is my very subjective opinion. The circuit provides a little audio boost which is very helpful when used with some homebrew designs.

Most MFJ CWF-2 pcbs were fixed in the cabinets by hot glue or something similar. Over the years this dries out allowing the board to move around inside. It's not a pretty sight but a definite plus for the buyer!

Rattling the filter in front of the flea market seller is great for getting the price down! "Are you sure this thing works?" If that line doesn't produce I'll try to open it up and put a meter on the 9V battery, which is **always** real dead! I routinely pay \$5.00 for examples in visually good condition but a buck or less has occasionally sealed a deal.

One CWF-2 in my stash housed in a gray cabinet has a rotary power/bandwidth switch though I'm not really sure it was factory built. I've always assumed the later models have the slide switches for power and bandwidth. These are contained in either gray (older) and blue/white (later) cabinets. MFJ also sold just a kit of parts! I believe the old Milliwatt series had a review of

the filter and it did contain the advertisements.

There was a CWF-3 but I've never seen one. The narrowest bandwidth is 110 hz. Ade Weiss showed how to homebrew a CWF-3 in an older CQ column (early 80's?). That circuit is built on the Radio Shack all-purpose pcb.

Suggesting that if you see a CWF-2 just buy it and worry later about an application.

de Dave, NF0R nf0r@slacc.com

Date: Sun, 15 Feb 1998 23:29:48 -0600
From: Jay Bromley <w5jay@cei.net>
To: qrp-1@Lehigh.EDU
Subject: [3920] Qrp DX
Message-ID: <34E7CECC.3D5E@cei.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

A friend of mine, Win (WB5KOM), let me borrow a Ten-Tec Argosy he had in storage. It took awhile to clean off a spot on the desk for it. Hooked up a newly acquired gold VHS paddle from G4ZPY and listen around on 15m. Worked WP4LNY (Julio) which trying out a new set of paddles for the first time. While not rare DX it was a fun QSO. Then had to do some house work so I didn't get a chance to play radio till 0100 utc. I fired up the old borrowed Argosy and tune around 10.123 and heard LU1ZC on South Shetland Island. He wasn't running many stations fast so I waited til a break and bang got him with 1 watt. He was a very smooth operator.

Oh I forgot the antenna on 15m was a 10 element log up 56 ft and the power ther was 1 watt also. The antenna on 30m is a 3 1/4 wave slopper up 50 ft. So much about beams vs wire. I guess both antennas qualify for the miles per watt award?

Shame Ten-Tec doesn't make a rig like this anymore with a price of the Scout!

Life is great. I wish I was retired, I would Ham myself to death!

Goto go see if I can hear Paul's beacon on 160m 73 de w5jay or just Jay..

w5jay@cei.net
Fort Smith, AR.

Date: Sun, 15 Feb 1998 21:38:56 -0800
From: Monte Stark <ku7y@dri.edu>
To: designserv@ipass.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3921] Re: PV-powered battery chargers
Message-ID: <34E7D0F0.731C7768@dri.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

LYN WILLIAMS wrote:

> **** snip ****
> 11.7 volts, and the voltage of a rested fully charged
> battery is about 12.7 volts, you can see that an analog
> meter just doesn't cut the mustard.
>

Wow,

I'm sure glad I didn't know that when I was taking care of batteries back in the 50's!

On a 0 to 15 volt scale, you can see what you need to see! If that's what you have, use it!

--

73, Ron, KU7Y

NRA Life-----Ex W6JX0, DL4RF, N7CRV-----SOWP #5545-M
QRP ARCI #8829----NorCal #330----QRP-L #17-----ARS #49
AR QRP #150-----DM09cg-----New Washoe City, NV

Date: Sun, 15 Feb 1998 22:48:59 -0800
From: Chuck and Michele Snyder <csnyder@nextdim.com>
To: QRP <qrp-l@Lehigh.EDU>
Subject: [3922] re: ZM-2 Tuner Images (Recently Update my URL)
Message-ID: <34E7E15B.8BC01969@nextdim.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi All,

I recently updated my web page. There you will find some nice images of that ZM-2 Antenna Tuner through the construction process. Though my web page may not be as impressive as some I have seen, maybe for some of you new people, like myself, will find something of interest or of use. Here's my URL: <http://www.nextdim.com/users/csnyder/index.htm>.

By the way...Thanks Wayne for being so helpful! Wayne and I graduated from the same school: Eastern Washington University. Approximately a year or so prior to graduating this past June, Wayne, patiently introduced me to Ham Radio. Well, I slowly am coming around. And, yes, Wayne, it will probably take me a bit to learn CW, but I will do it. Though I am not as hardcore as some of you old-timers, I still love the hobby. My problem is that I am torn between scuba-diving and ham radio.

Again, thanks for all your help, Wayne and everyone else on this list. Your advice and suggestions are highly valued!

Good luck in finding a job, Wayne.

I look forward to the Elmer Project!

Chuck ;-)

Date: Sun, 15 Feb 1998 23:23:16 -0800
From: David Adams <adamsclan@netgate.net>
To: lbbarley@feist.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3923] Re: FOUND! RS #22-305 freq. counters - still on shelf
Message-ID: <34E7E964.E6389B86@netgate.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Greetings! My counter came without the manual, would anyone be willing to mail/fax/scan and email me a copy? Lemme know.

73 de dave, n9uxu

--

David J Adams, N9UXU

adamsclan@netgate.net

Amateur Radio, Flow Cytometry, Digital Photography and Parrot enthusiast

<http://u1.netgate.net/~adamsclan>

Date: Mon, 16 Feb 1998 02:27:52 EST
From: PGSPersEng@aol.com
To: qrp-1@Lehigh.EDU
Subject: [3924] Scope: new or used?
Message-ID: <c2db05e5.34e7ea7b@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Could some of you experienced guys give me some advice on getting a scope?

I've been nice to my wife for V-day, and I have a birthday coming up, so a scope might be in the plans. I'm getting more and more into homebrewing, and having one would sure help me understand the circuits.

Anyway, I found a place near Boston that sounds like its got a warehouse full of used stuff as well as sell new stuff. Here are my questions:

Is it better to get a new scope or a used scope? With a used scope, I'm not sure how I can determine if I'm getting a lemon that will crap out in a few months. I won't be using it for hours and hours every day, so any problems might not surface until I'm out of the 6-month warrantee period. In that sense, a new scope sounds better. However, the ones I can afford (budget of tops \$1k, looking at 1-MHz scopes -- do I really need that much bandwidth?) are the imports, and I fear that their quality won't match that of a Tek or HP unit.

Do I go with a new import or a used domestic unit? How can I tell a good used scope from a piece of junk? Are there some easy tests to run?

Thanks,
Paul, AA1MI

Date: Mon, 16 Feb 1998 06:57:00 EST
From: DMRAWSON@aol.com
To: n2mnn@spacegate.com, qrp-1@Lehigh.EDU
Subject: [3925] Re: FOX:Results Sat N/t Fox, W2MBY
Message-ID: <8d809f21.34e8298e@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Well, I can say I was certainly surprised to find you in the clear and calling CQ. I was outside in the Garage when I remembered the Fox was on, ran in, turned on the rig and there you were. My first Fox! It was great! Would have been better except as soon as you came back to me, my wife and two kids started talking to me. Very distracting trying to referee an argument and copy code too. You had a fine signal here in dayton, Ohio, so I'm sure the lack of response wasn't the band but competition from other weekend events and projects.

In any event, thanks for the contact, look for you again.

david KB8RRG

Date: Mon, 16 Feb 1998 07:14:58 -0500 (EST)

-----...----->
40 meters -----...----->
<-----20 ----->
^ solder lug
tape up this end

Now, the last part of the story -- putting it up. Remember, the higher the better works for almost all antennas, ground mounted verticals and submarine antennas excepted! Go to a sporting goods store and buy an "industrial strength" slingshot; over here, Whammo is a good brand. These guys are made from steel and use surgical tubing for the rubber part. Buy a couple packs of lead fishing sinkers and you're on your way to orbit.

You have two choices for launching the antenna using a slingshot. You can put up a length of monofilament fishing line and pull the antenna up, or you can launch the wire directly. Both methods work, but using fishing line is probably more forgiving if you hit the wrong branch. Oh, did I mention the trees? Sorry, but you'll need some tall trees too!

Hope this helped.

73

Date: Mon, 16 Feb 1998 06:37:32 -0600
From: "JUNIUS B FOX" <w5hir@gte.net>
To: <qrp-1@Lehigh.EDU>
Subject: [3927] bipolar steppers
Message-ID: <01bd3ad7\$a69b09c0\$296afed0@w5hir.gte.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Does anyone have schematics using the bipolar stepper motor?
I currently have two bipolar stepper motors with drivers (L293D).
If I understand correctly the driver chips are just that, drivers, and require some sort of input sequencing logic to make the little puppies work.

Any help you can give me would certainly be appreciated.

Regards,

Foxy w5hir@gte.net

Date: Mon, 16 Feb 1998 08:32:47 -0500
From: Gary Chevalier <gchevalier@isi.com>
To: qrp-l@Lehigh.EDU
Subject: [3928] Kit or plans for a 6 meter amp
Message-ID: <3.0.32.19980216083245.0071d0c4@chief>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

To all,

I have recently built Ten-Tec's 2 to 6 meter transverter. The kit assembled easily and works like a champ. Does anyone know where I can either build or get plans to build a low power 6 meter FM amplifier? The output of the transverter is about 8 watts. I'm looking for an amp for mobile use that can put out about 50 watts max.

Also, I tried moving the toroids away from each other on my Ten-Tec 1330 as suggested. I can now tune it up through my MFJ!

Thanks for the advice.
Gary (W1GRY)
Merrimack, NH

Date: Mon, 16 Feb 1998 08:26:19 -0800
From: LYN WILLIAMS <designserv@ipass.net>
To: PGSPersEng@aol.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3929] Re: Scope: new or used?
Message-ID: <34E868AB.DCA659E4@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Paul,

The first thing to do is to decide what your purpose is in getting a scope. A cheap new scope might be a good choice for some applications. You wouldn't need a lot of bandwidth for DC & audio applications. On the other hand, if you're wanting to work with signals that have a fast rise time or high frequency, then it might

be a total waste of money to buy the cheap new scope because it may not be able to see what you need to see.

If your application is to look at non-recurring signals, then you will be very concerned about triggering options on the scope.

If your application is to compare two signals then you may need a dual trace scope.

If your application is low voltages, then the input amp would be one area of concern.

If you want to look at touchy high impedance circuits, a good high impedance low capacity probe will be essential.

And the list goes on. If you decide the new cheap scope will not do your job, then get a friend who has a lot of scope experience to go shopping with you for a used scope -- one with a guarantee would be my first choice.

73,
Lyn, W4WDN

PGSPersEng@aol.com wrote:

> Could some of you experienced guys give me some advice on getting a scope?
>
> I've been nice to my wife for V-day, and I have a birthday coming up, so a
> scope might be in the plans. I'm getting more and more into homebrewing, and
> having one would sure help me understand the circuits.
>
> Anyway, I found a place near Boston that sounds like its got a warehouse full
> of used stuff as well as sell new stuff. Here are my questions:
>
> Is it better to get a new scope or a used scope? With a used scope, I'm not
> sure how I can determine if I'm getting a lemon that will crap out in a few
> months. I won't be using it for hours and hours every day, so any problems
> might not surface until I'm out of the 6-month warrantee period. In that
> sense, a new scope sounds better. However, the ones I can afford (budget of
> tops \$1k, looking at 1-MHz scopes -- do I really need that much bandwidth?)
> are the imports, and I fear that their quality won't match that of a Tek or HP
> unit.
>
> Do I go with a new import or a used domestic unit? How can I tell a good used
> scope from a piece of junk? Are there some easy tests to run?
>
> Thanks,
> Paul, AA1MI

Date: Mon, 16 Feb 1998 08:18:29 -0600
From: "Jeff M. Gold" <JGold@tntech.edu>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [3930] 30 meter SST for sale
Message-ID: <023901bd3ae5\$c1affd20\$4d0b9595@mm-man.cc.tntech.edu>
MIME-version: 1.0
Content-type: text/plain; charset="iso-8859-1"
Content-transfer-encoding: 7bit

I have a built, and tested 30 meter Wilderness SST Transceiver for sale.
Only mod is so it covers 1.100--1.120 (usable part of band). the little rig
has a GREAT receiver and I believe it puts out about 2 watts.. have had many
long QSOs with it and a vertical antenna.

\$75 shipped US

72

Jeff, AC4HF

=====

Jeff M. Gold, Ed.S.
Manager, Academic Computing Support
Tennessee Technological University

Date: Mon, 16 Feb 1998 08:19:44 -0600
From: "Jeff M. Gold" <JGold@tntech.edu>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [3931] Centennial 20 meter
Message-ID: <023b01bd3ae5\$ee1c5d40\$4d0b9595@mm-man.cc.tntech.edu>
MIME-version: 1.0
Content-type: text/plain; charset="iso-8859-1"
Content-transfer-encoding: 7bit

anyone get one of the 20 meter versions on the air. Mine is built, the
receiver seems fine, the transmit puts out very low power. I am using a Ten
Tec hand mike from my Argosy II. Not sure about whether the mike is driving
it enough. the voltage to the final adjusted right on the money.

thanks for any help

Jeff

=====

Jeff M. Gold, Ed.S.
Manager, Academic Computing Support
Tennessee Technological University

Date: Mon, 16 Feb 1998 07:30:37 -0700 (MST)
From: Chris Trask <ctrask@primenet.com>
To: PGSPersEng@aol.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3932] Re: Scope: new or used?
Message-ID: <Pine.BSI.3.96.980216072254.13436A-100000@usr02.primenet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 16 Feb 1998 PGSPersEng@aol.com wrote:

> Could some of you experienced guys give me some advice on getting a scope?
>
> Anyway, I found a place near Boston that sounds like its got a warehouse full
> of used stuff as well as sell new stuff. Here are my questions:
>
> Do I go with a new import or a used domestic unit? How can I tell a good used
> scope from a piece of junk? Are there some easy tests to run?
>

Paul,

You'll get your money's worth with one of the Tektronix 7000-series scopes or a 465. The Tek 465 was one of the best bench scopes ever made, and there are literally thousands of them still in service, and they cost around \$400-\$500. Next step up would be a Tek 7603 with a pair of 7A26 amplifiers and a 7B53 time base. This 4-channel 100 MHz scope would cost you around \$500. Then there's the Tek 7704A with the same amplifiers and a 7B80 or 7B85 time base. That would be a 4-channel 200 MHz scope costing about \$600. Best would be a 7904A with a pair of 7A24's and a 7B92A time base. This gives you a 4-channel 400 MHz scope which would run you around \$750.

I bought a 7904A about 4 years ago with plug-ins for \$550 and it's still running fine. You won't get anywhere near as much bang for the buck with a new import.

```

      .----- .
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```

Circuit Design for the RF Impaired

Chris Trask / N7ZWY
Principal Engineer
ATG Design Services
P.O. Box 25240
Tempe, Arizona 85285-5240

Technical Editor,
QRP Quarterly
QRP ARCI 9464

Email: ctrask@primenet.com
<http://www.primenet.com/~ctrask>

Graphics by Loek Frederiks

Date: Mon, 16 Feb 1998 10:41:02 -0500 (EST)
From: "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
To: Chris Trask <ctrask@primenet.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3933] Re: Scope: new or used?
Message-ID: <Pine.LNX.3.95.980216103101.6909B-1000000@w3eax.umd.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I bought a Tek 454 at a hamfest about 9 years ago. I got it with a pair of very nice 10x probes. It worked perfectly when I got it and it still does nine years later, although it could probably stand to be calibrated at this point.

I vaguely remember paying about \$350 for it, and I consider it to be one of the best purchases I've made in a long time.

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
* 6m 82 grids on 8w * DXCC WAS WAC * QRP-L #147 * QRP ARCI #9054 *
* <http://w3eax.umd.edu/~ham> * ARRL Life Member /Laurel ARC/UMARA *
*** 301-549-1022 h 301-982-1015 w *** 35 wpm HF mobile CW Neon ***

On Mon, 16 Feb 1998, Chris Trask wrote:

Date: Sun, 15 Feb 1998 19:52:08 -0800
From: "Frank A. West" <ke6vhm@earthlink.net>
To: <whalen@swcp.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [3934] Re: 20 mobile
Message-ID: <199802161501.HAA26161@norway.it.earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Tom,

I have a resource for most of the early CB Sams Photofact . I could help you with that part of it. I would be interested in the conversion information.

72 de KE6VHM Frank

> From: tom whalen <whalen@swcp.com>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Subject: 20 mobile
> Date: Sunday, February 15, 1998 5:15 PM
>
> Hello Fellow Qrpers!
>
> I posted last week that I was operating mobile to work everyday on 20
> meters. I was reminded to state the time in UTC....guess I failed!

> Anyhow, if anyone can get on 14.060 starting at 2050 till about 2120
> UTC, I will try to work you.
> I use a straight key with either my converted CB, or my Emtech 20.

> Antenna is a homebrew 8' center loaded whip on the back bumper.

>
> Few inquiries about the converted CB.It was converted by a local ham
> that is an engineer.Sharp fellow and he did a good job. Covers the whole
> band and does cw and ssb both.
> He said he wants to convert a cb to 40meters next and I may donate one
> that I picked up at a garage sale. I will see if I can get all the dope
> on the conversion and share it with this group.
> I think everyone would be interested in a 40 meter cw/ssb rig for
> probably peanuts!
>
> I believe I have all the conversion dope for the 15 and 20 meter rigs,

> but will have to get the time to go through it before I turn it loose to
> the group.
> So, the next time you go to a garage sale, don't overlook ANY of the 40
> channel ssb type rigs...Could be your next 20 meter rig!

>
> Sams photofacts are a must for the conversions, and I have them for the
> following rigs as info. Realistic model trc-448, Royce model 1-632. Im
> sure with all the people on this list we can all share our photofacts
> and save some bux.
> Ten meters is opening up soon and thats a good band to convert a cb rig.

>
> Have not heard much from the people that were hot on the cb conversions
> lately. Guess its like everything else, it comes and it goes!!

>
> 72, Tom WB5QYT...." Have spud will travel!"
>

Date: Mon, 16 Feb 1998 15:17:56 GMT
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-1@Lehigh.EDU
Subject: [3935] Wanted Diodes, SPICE models
Message-ID: <199802161517.PAA23890@chuck.dallas.sgi.com>

Gang,

I'm in need of SPICE models for 1N34A, 1N914, 1N4148,
and any others you may have. I am comparing the versions
that are around. Of course, I would like the information
yesterday.

I have a pile of email to catch up on, so forgive the absense.
I was in CA (and it wasn't sunny) for 10 days. During that
period of time I was doing 14+ hour days and had aperiodic
access to email under strange circumstances that you don't
want to hear about. It wasn't fun at all.

My apologies to Bob N6WG and the CA gang for not getting any
time for even a pizza break. Next time for sure.

So I have two weeks to catch up here and will make every effort
to get to all that have requests pending or email that I haven't

gotten to yet. Be patient, please.

I managed on the way to the airport Friday to stop at Computer Literacy and have about 8 or so books on SPICE to review for the crowd that is interested. So many books in the stores and so little time.....

dit dit

Chuck Adams K5FO Dallas,TX CP-60
<http://reality.sgi.com/adams> adams@sgi.com

Date: Mon, 16 Feb 1998 09:24:08 -0600 (CST)
From: rspenc@creighton.edu
To: qrp-1@Lehigh.EDU
Subject: [3936] 1995 handbook, sierra
Message-ID: <Pine.HPP.3.95.980216092036.7809D-100000@bluejay.creighton.edu>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Gang:

I recently read through my QRPp and saw that someone homebrewed (very nicely, may I add) the Norcal Sierra using information available in the 1995 ARRL Handbook. Question is, where could I get a copy of this article, and would it be legal to get a photocopy- particularly the board artwork (I am somewhat experienced at etching circuit boards)? I cannot find the 1995 Handbook around, and am not aware if the material exists in the current ARRL Handbook (I usually purchase a new one every 4 years or so).

Any hints?

Thanks!!!

Rich WK2A

Dr. Richard S. Penc	Amateur Radio: call WK2A
Assistant Professor	Interests: QRP, constructing,
Department of Atmospheric Sciences	6m
Creighton University	
2500 California Plaza	FCC Licenses:
Omaha, NE 68178	General Radiotelephone
	Second Class Radiotelegraph
	Radar Endorsement

phone: (402) 280-2420		Accredited VE: ARRL, W5YI
fax: (402) 280-1731		
email: rspenc@creighton.edu		Certifiably crazy computer geek
richpenc@juno.com		

Date: Mon, 16 Feb 1998 06:49:31 -0500
From: Stephen Gibson <SWGibson@worldnet.att.net>
To: qrp-1@Lehigh.EDU
Subject: [3937] 10X Probe
Message-ID: <19980216153918.AAA2552@DEFAULT>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Can some knowledgeable guru tell me the difference between a 10X probe and the probe described in the ARRL Handbook? My troubleshooting gear to date is limited to a RS VOM so you can see that I am somewhat limited in my skills.

I'd appreciate some help.

73

Steve, WB4NBI

Date: Mon, 16 Feb 1998 10:51:47 -0800
From: Randy Hargenrader <randyh@harksystems.com>
To: "klqrp@waterw.com" <klqrp@waterw.com>
Cc: qrp-1@Lehigh.EDU
Subject: [3938] KnightLite Net 2/15/98
Message-ID: <34E88AC3.72E07E36@harksystems.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The Feb 15th session of the KnighLite QRP Net was well attended with 12 check-ins and a Pixie/Smite or two...
Conditions could have been better with less QRN and QSB.
QNS: WF4I, K4NK, AE4IC, KE4QZB, W3RDF, WB4OFT, N2SMH, K2SJB,

W4WDN, WA4NID, AB4PP, and N3GO.

Next time I've got to remember to ask for QRPP stations first while all the ears are around. Copy was rough and I appreciate the help with "relays" (QSP's) of stations I can't copy but you can.

The KnightLite QRP Net is open to all amateurs with any power level. Please come join us Sunday nights at 9:30pm Eastern on 3.686.4mHz.

--

73, Randy WJ4P

Knightlites QRP-L #296

Date: Mon, 16 Feb 98 08:55:22 MST
From: af852@rgfn.epcc.Edu (William R Colbert)
To: qrp-l@Lehigh.EDU
Subject: [3939] RE:QRM from RTTY
Message-ID: <9802161555.AA19367@rgfn.epcc.Edu>

Good suggestion to go to 30 or 17 meters to get away from the digi/rtty qrm but it won't work. Especially on 30 meters. That band has been under attack for several weeks now and the digi-jereks have just about taken over the range down to below 10.120 - especially when there is a qso in progress - amateur or commercial, they pop up right on top and start chirping. I have heard that type activity on 20 and 15 as well - only a cw qso in progress and then the digi-jerk fires up right on top. The old excuse of having to work lower in the band to correspond with the dx contacts just won't work in these cases. Nor does it on 40 during the day - packet and some type of tor transmission down to 7.025. Seems to me, digi's trying to usurp the entire range of frequencies for only their operation. Makes one want to get out the supply of straight pins!!!

I put the blame for a lot of this back to the ARRL and other national organizations in pushing the lower frequency operations of RTTY/digi stations.

--

Ray Colbert, W5XE
00TC 3618, SOWP 1064M
El Paso, Tx (Far West Texas)
(also: v31xe@dzn.com)

Date: Mon, 16 Feb 1998 08:56:44 -0800
From: Brian Kassel <bkassel@dancris.com>
To: QRP-L <QRP-L@Lehigh.EDU>
Subject: [3940] WWV controlled Clock Movement: \$ 28.95
Message-ID: <34E86FCC.7830@dancris.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Folks:

I ran across this item in another reflector. It's a clock movement that automatically synches itself to WWV, guess that it has to have some sort of RX built in.

Price looks very decent: \$ 28.95.

You might want to build it into one of your QRP boxes. Don't think that it will quite fit into a ZM-2 however ;)

They have an extensive selection of sizes, finishes etc.

Features from their WWW page:

Exact Time According to the National Time Standard
Latest Quartz Technology
Accurate to the Second
Self-Setting
Free Hands
Case Size in Inches: 3 5/8 H x 2 1/4 W x 11/16 D

Their WWW Page:

[http://www.klockit.com/ordnew.cfm?
type=radiocontrolled&itemtype2=RadioControlledMovements](http://www.klockit.com/ordnew.cfm?type=radiocontrolled&itemtype2=RadioControlledMovements)

I have no link or financial interest in this company or product, just the messenger.

--

Brian Kassel W5VBO
ARCI # 3623
Phoenix AZ ScQRPions

Date: Mon, 16 Feb 1998 10:03:35 -0600
From: Dave Sjolin <sjolin@swbell.net>
To: rspenc@creighton.edu
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3941] Re: 1995 handbook, sierra
Message-ID: <34E86357.115A@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

rspenc@creighton.edu wrote:

> I recently read through my QRPp and saw that someone homebrewed (very
> nicely, may I add) the Norcal Sierra using information available in the
> 1995 ARRL Handbook. Question is, where could I get a copy of this article,
> and would it be legal to get a photocopy- particularly the board artwork
> (I am somewhat experienced at etching circuit boards)? I cannot find the
> 1995 Handbook around, and am not aware if the material exists in the
> current ARRL Handbook (I usually purchase a new one every 4 years or so).

Rich, the Norcal Sierra is also featured in the 1998 ARRL Handbook. No
template is shown in the article but you are directed to contact ARRL
Technical Department Secretary and request the '96 Handbook Sierra
template package. This includes data on band modules for 160, 12 and 10
meters that were not included in the 1995 Handbook.

I am not sure if the entire article is the package. You might give the
ARRL a call and ask them on Tuesday.

Good luck. 73 de Dave, N0IT

Date: Mon, 16 Feb 1998 10:22:39 -0600
From: "Rattray, Bruce" <Rattray@siast.sk.ca>
To: "'QRP-L'" <qrp-l@Lehigh.EDU>
Subject: [3942] elmer101: rf probe
Message-ID: <ABB04875E11AD01191A40000F83092BE832543@STONE>
Mime-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: 7BIT

I was looking at the rf probe in the 1997 ARRL Handbook with the thought
of putting one together for the elmer101 course...I see we need to have

a meter with an 11 megohm input according to the text...so if we don't have an 11 megohm input meter, I guess we'll have to get one? or is it not all that critical?...thanks & 72 - Bruce(VE5RC) -

e-mail: rattray@gpfn.sk.ca

Date: Mon, 16 Feb 1998 11:22:51 -0500
From: Thomas Isgro <kc8dgu@postoffice.worldnet.att.net>
To: rspenc@creighton.edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3943] Re: 1995 handbook, sierra
Message-ID: <34E867DB.1BE4@postoffice.worldnet.att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

rspenc@creighton.edu wrote:

>
> Hi Gang:
>
> I recently read through my QRPP and saw that someone homebrewed (very
> nicely, may I add) the Norcal Sierra using information available in the
> 1995 ARRL Handbook. Question is, where could I get a copy of this article,
> and would it be legal to get a photocopy- particularly the board artwork
> (I am somewhat experienced at etching circuit boards)? I cannot find the
> 1995 Handbook around, and am not aware if the material exists in the
> current ARRL Handbook (I usually purchase a new one every 4 years or so).
>
> Any hints?
> Thanks!!!
>

The article is in the 98 Handbook

--

73 de
KI8CZ
Tom Isgro
OHIO

<http://www.qsl.net/ki8cz>

10-X #68364 SCI #1479 QRP-L #945 ARS #203
C.A.T.T #2115 FIST 2360 NORCAL ARRL

Date: Mon, 16 Feb 1998 08:24:36 PST
From: "Ray Lowe" <wd5dhk@hotmail.com>
To: qrp-l@Lehigh.EDU, w6toy@pop.erols.com
Subject: [3944] Re: QRP in the Mountains...
Message-ID: <19980216162436.10959.qmail@hotmail.com>
Content-Type: text/plain

One case where a counterpoise will not be needed on an end fed wire is if you can make the antenna a multiple of 1/2 wavelength long. This basically makes your antenna a zepp fed dipole. I use this antenna fairly often supported by a kite. The only shortcoming is the bands need to be harmonically related for this to work. If not, then it may be time for the radials to be pulled out for those bands. good luck with your setup.

72/73

Ray Lowe
WD5DHK
Lancaster, Tx (near Dallas)

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Mon, 16 Feb 1998 08:24:30 -0700
From: "Michael Fletcher" <kl7ixi@mailcity.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>, "Brian Kassel" <bkassel@dancris.com>
Subject: [3945] Re: WWV controlled Clock Movement: \$ 28.95
Message-ID: <JOBFHGJCIHIIDAAA@mailcity.com>

Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Folks:

I ran across this item in another reflector. It's a clock movement that automatically synches itself to WWV, guess that it has to have some sort of RX built in.

Price looks very decent: \$ 28.95.

Just a caveat about this item:

My neighbors received a beautiful clock using this movement and DIDN'T read the instructions first, mounted the hands and pulled out the little pin locking the movement

before they set the hands correctly. We've spent more than three hours on resets, trying to get it back to where the starting position should be. No luck yet.

In the correction mode, every three seconds the hands will move an extra second or two. It can take up to 90 minutes for a time zone correction to be made.

It is supposed to be very accurate but please follow the instructions to the letter before pulling the pin.

Mike KL7IXI

Get your FREE, private e-mail
account at <http://www.mailcity.com>

Date: Mon, 16 Feb 1998 11:35:30 -0500
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [3946] elmer101: FAQ is up
Message-ID: <34E86AD2.6DBA@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Go to <http://www.qsl.net/kf4trd> for the latest FAQ regarding the elmer project.

Please no comments regarding the quality of the HTML on the page.

Whaddya want for free??? Comments on the content are welcome.

--

72 de kf4trd
Mike Maiorana
Palm Harbor, FL

"But first, are you experienced?"

Date: Mon, 16 Feb 1998 08:53:39 -0800
From: Bill Todd <bill@willapabay.org>
To: nwq-l@scn.org
Cc: qrp-l@Lehigh.EDU
Subject: [3947] Re: Ade's Article
Message-ID: <1.5.4.32.19980216165339.007109bc@willapabay.org>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 03:46 AM 2/16/98 EST, you wrote:

>Hi Bill,

>Is Ade's antenna article available in a non-formatted form anywhere?

Group(s) -

Looks like I am going to have to revise the formatting of the "NWQ" newsletter a little more. I was unaware that it is now TOO wide for easy printing.

If any of you wish to get the ASCII text version of the Newsletter, which includes the complete "Effective Height" article, please send me a note, and I will send the "FEB98.TXT" attachment to you. JUNO users - ask for the newsletter sent to you in a message form (not an attachment).

CUL, Bill-N7MFB

PS Contact me via my school E-mail address if you need this attachment (or message) Monday through Friday of this week at: n7mfb-7@juno.com. Otherwise, I will send out your attachments on Friday night of this week.

Date: Mon, 16 Feb 1998 10:54:51 -0600
From: Dave Sjolín <sjolin@swbell.net>
To: af852@rgfn.epcc.Edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3948] Re: QRM from RTTY
Message-ID: <34E86F5B.43B2@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

William R Colbert wrote:

>
> Good suggestion to go to 30 or 17 meters to get away from the
> digi/rtty qrm but it won't work. Especially on 30 meters. That
> band has been under attack for several weeks now and the digi-jereks
> have just about taken over the range down to below 10.120 - especially
> when there is a qso in progress - amateur or commercial, they pop up
> right on top and start chirping. I have heard that type activity on
> 20 and 15 as well - only a cw qso in progress and then the digi-jerk
> fires up right on top. The old excuse of having to work lower in the
> band to correspond with the dx contacts just won't work in these cases.
> Nor does it on 40 during the day - packet and some type of tor transmission
> down to 7.025. Seems to me, digi's trying to usurp the entire range
> of frequencies for only their operation. Makes one want to get out
> the supply of straight pins!!!
> I put the blame for a lot of this back to the ARRL and other national
> organizations in pushing the lower frequency operations of RTTY/digi
> stations.

Ray, I think if you had digital monitoring equipment you would find that most of this packet and tor type activity is either commercial or from outside the US, mostly South America. I doubt ARRL has much influence over these ops.

By the way, I think you make a mistake to lump all of the digital modes together. There is relatively little overlap between the operators you hear on during the rtty contests or chasing dx with rtty and those using the "chirp" modes to rag chew or access bulletin boards. One example of this, some of the chirp operators attempted to jam a number of the rtty testers yesterday, following some ops from freq to freq.

73 de Dave, N0IT

Date: Mon, 16 Feb 1998 12:24:47 -0500
From: Derek Brown <DBrown@RFMD.com>
To: "'QRP-L'" <qrp-l@Lehigh.EDU>
Subject: [3950] Sierra Transmit Power
Message-ID:
<c=US%a=_%p=RF_Micro_Devices%l=PACHACUTEC-980216172447Z-1939@proxy1.rfmd.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Among the many responses to my requests for information on Sierra transmit mods, I received the following idea (which I implemented among others). This idea is offered in response to the person who was having trouble peaking the transmit power on 10 M. On the 20 M module and above I made the following changes to make it easier to find the peak transmit output:

Change C33 & C36 from their original trimmers [from either 9 - 50 pF [green] (20 - 15 M) or 5 - 30 pF [yellow] (12 & 10 M)] to 3.5 - 20 pF trimmers [blue] (Mouser Stk No. 24AA082). Add fixed capacitors at C32 & C35 (normally not used on these higher frequency modules) to center the trimmer adjustment range.

These mods made it very easy to peak the transmit power even on 10 M. Since I originally built the rig with these mods, I really don't know just how "touchy" the transmit output adjustment can be.

Derek, WF4I
Greensboro, NC
dbrown@rfmd.com

Date: Mon, 16 Feb 1998 13:04:20 -0500
From: Hank Kohl K8DD <k8dd@contesting.com>
To: qrp-l@Lehigh.EDU
Subject: [3951] January MI QRP Club Contest Results
Message-ID: <3.0.1.32.19980216130420.006c885c@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The results for the January MI QRP Club Contest are out.

Check them out at:

<http://www.geocities.com/CapeCanaveral/2844/1-3-98.html>

73 Hank K8DD

*/ Hank Kohl K8DD k8dd@contesting.com
*/ ARRL TS (k8dd@t1r.com)
*/ G-QRP ARRL/LM QCWA/LM QCAO/LM
*/ QRP-ARCI - Director MI-QRP - Vice Pres.
*/ <http://www.QRPARCI.org>
*/ <http://www.geocities.com/capecanaveral/2844/miqrp.htm>

Date: Mon, 16 Feb 1998 11:08:05 -0700
From: Andy Fox <foxes@theriver.com>
To: mikemo@ibm.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3952] Re: elmer101: FAQ is up
Message-ID: <34E88085.844B85D7@theriver.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Mike,

It looks good so far. Thanks for taking the time to do this for us.

72 and 73

--

Andy Fox, KK7HV
<mailto:foxes@theriver.com>
<http://personal.riverusers.com/~foxes/>

Date: Mon, 16 Feb 1998 09:11:52 -0900

From: "Georgia Raynsford" <raynsford@gci.net>
To: qrp-1@Lehigh.EDU
Subject: [3953] Alaskan milliwatts ...
Message-ID: <3.0.2.32.19980216091152.00fc80f8@mail.gci.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

With the solar flux on the rise, this weekend I dusted off my HW-9 which has been patiently waiting on the shelf. Made a operational check, setting the output power to 250 milliwatts...

Worked a few Ja's on 12, 15 and 17 meters. But at 23:50 utc (15 Feb) on 21.060 mhz KH6AFS, Sam was busy working stateside stn's. We exchanged signal reports, and Sam immediately dropped his power from 1w to 250 millwatts also. Qso continued for awhile until the north-south 15mtr band opening from Hawaii to Alaska started shifting westward. Checking the indicies, 10.7cm flux was 106, A3, K2 the stratwarm alert was canceled. Sam was using his windom and myself a homemade roof-mounted vertical (40ft tall, base matching network). Its great to hear the bands pick up again!

As afternoon greyline kicks in on 30 mtrs the LU1ZC pileup often booms in. Monitored W5JAY crack the pileup, sharp operating om!!!

73 to all. Looking forward to working the folks on this e-mail reflector... Cheers!

AL7JK John
Eagle River, Alaska.
raynsford@gci.net
packet: al7jk@k17aa.#nak.ak.usa.noam

Date: Mon, 16 Feb 1998 18:31:16 GMT
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-1@Lehigh.EDU
Subject: [3954] Elmer101: SPICE pointers
Message-ID: <199802161831.SAA26364@chuck.dallas.sgi.com>

Gang,

After considerable time matching results between SPICE Version 2G6 and SPICE Version 3F4 I have finally concluded that both programs give the same results with a very very small percentage deviation.

The problems that I was experiencing earlier had to do with iteration loops. In some simulations you will get one more loop iteration in one version than the other. So be on your toes when comparing results. This wasn't exactly obvious until I was able to postprocess the SPICE2G6 results with my own graphics routines and combine the SPICE3F4 results into the same graph. I will be putting these results on the web page this week along with some Elmer101 stuff to follow along with the elmering project.

If you are interested in using SPICE (Simulation Program with Integrated Circuit Emulation) to do simulation of RF circuits, then here are some pointers to versions on the Internet and it is left as an exercise for the student to both get to them and get them functional on whatever system you chose to use.

Here are some web and ftp links to start with:

<http://www-personal.umd.umich.edu/~rlab/software.html>

- o Has link to PSPICE ftp site.
- o Has link to file spice3f4.tar.gz for Linux O/S.
- o PSPICE Version 6.10 for Windows and MacIntosh and V5.1 for MacIntosh
- o Also has some broken links that have not been updated. The Internet at work.....

<http://www.mpce.mq.edu.au/elec/cnerf/spice/>

- o Link to UNIX versions of SPICE3F4 and PostScript version of users manual
This version has X interface for generating plots that is invaluable.

ftp to [ftp.lehigh.edu](ftp://ftp.lehigh.edu)

- o /pub/listserv/qrp-1/tools/rs34.zip for the RCG version of SPICE2G6 for PCs
- o /pub/listserv/qrp-1/spice/ directory for 2N2222A circuit models
by Rob,K06KA,rheiss@sprynet.com and others

So, why is all this important? Well, there is a great deal that can be done using a computer that will save you some time at the workbench, but it will not replace the actual building and testing of the circuits. Computer modeling will answer a lot of 'what if' type questions and possibly give you

some insight with experimentation on how to improve some circuits. It is just another tool available to the QRP'er and experimenter. There is still a need for the calculator and paper also, so don't become dependent upon any one technique for solving problems. The most important thing of all is the grey/gray matter between the ears. :-)

During the Elmer101 project some interesting circuits and tests will be done with SPICE by some of the instructors/students/bystanders so having a running version may help gain some insight into what is going on.

FYI

Chuck Adams K5FO Dallas,TX CP-60
<http://reality.sgi.com/adams> adams@sgi.com

Date: Mon, 16 Feb 1998 12:38:57 -0600
From: Tim Ahrens <tahrens@inetport.com>
To: qrp-1@Lehigh.EDU
Subject: [3955] FOX TONIGHT!!
Message-ID: <34E887C1.B42C3990@inetport.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

0200-0400Z tonight... probably up around 7043 or so, depending on lower qrm.

cu there!

Tim W5FN

(that's 8-10pm cst)

Date: Mon, 16 Feb 1998 18:44:31 GMT
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-1@Lehigh.EDU
Subject: [3956] FOXHUNT Schedule 2.0
Message-ID: <199802161844.SAA26578@chuck.dallas.sgi.com>

1997-1998 FOXHUNT SCHEDULE
January 22, 1997. Version 2.0

WEEK	CALL	DATE	TIME (UTC)	CALL	DATE	TIME (UTC)
> 1	NM K50I	Oct 1	0200-0400	WI AE9K	Oct 3	0000-0200
> 2	OH N8VAR	Oct 8	0000-0200	PA NR3Z	Oct 9	0200-0400
> 3	AZ W7QQQ	Oct 15	0200-0400	TX W5FN	Oct 17	0200-0400
> 4	AZ NQ7K	Oct 21	0200-0400	ID AB7TK	Oct 22	0200-0400
>	VE7CQK	Oct 24	0030-0230			
> 5	CO N0TFI	Oct 28	0000-0200	MN N0UR	Oct 29	0200-0400
> 6	AZ W7QQQ	Nov 5	0200-0400	CA K1MG	Nov 7	0200-0400
> 7	MI K8CV	Nov 11	0200-0400	AZ KI7MN	Nov 12	0000-0200
> 8	SC W2UX	Nov 18	0100-0300	OH N8VAR	Nov 19	0100-0300
> 9	MN K0EVZ	Nov 25	0000-0200	KY KA8OKH	Nov 27	0100-0300
>10	MN N0UR	Dec 3	0100-0300	AL KS4L	Dec 5	0200-0400
>11	MI K8CV	Dec 9	0200-0400	IN N9DD	Dec 11	0100-0300
>12	MD W3CV	Dec 18	0200-0400	NM K50I	Dec 19	0300-0500
>13	KY KA8OKH	Dec 23	0100-0300	CO N0TFI	Dec 24	0000-0200
>14	CA W03B	Dec 30	0300-0500	MD W3CV	Jan 2	0200-0400
>15	NJ N2TNN	Jan 7	0200-0400	AL KS4L	Jan 9	0100-0300
>16	AZ KI7MN	Jan 14	0100-0300	ID AB7TK	Jan 16	0200-0400
>17	SC W2UX	Jan 20	0100-0300	NJ N2TNN	Jan 21	0100-0300
>18	NC AE4IC	Jan 28	0300-0500	WI AE9K	Jan 30	0100-0300
>19	IN N9DD	Feb 5	0100-0300	NM KK6MC	Feb 6	0030-0230
>20	PA NR3Z	Feb 12	0200-0400	CA K1MG	Feb 13	0200-0400
21	TX W5FN	Feb 17	0200-0400	CA N6WG	Feb 18	0200-0400
	VE7CQK	Feb 20	0100-0300			
22	MN K0EVZ	Feb 24	0000-0200	NC AE4IC	Feb 27	0300-0500
23	CA N6WG	Mar 3	0200-0400	CT AA1MY	Mar 4	0300-0500
24	CT AA1MY	Mar 10	0300-0500	CA W03B	Mar 13	0400-0600
25	NM KK6MC	Mar 18	0030-0230	AZ NQ7K	Mar 20	0200-0400

Chuck Adams K5FO Dallas,TX CP-60
http://reality.sgi.com/adams adams@sgi.com

Date: Mon, 16 Feb 1998 10:46:18 -0800
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
To: <PGSPersEng@aol.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [3957] Re: Scope: new or used?
Message-ID: <01bd3b0b\$2ac5d850\$309f5ecf@double_trouble.reliablemeters.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

You have a couple of choices.

1. Buy a used Tek 465 or 475 at a ham flea market for \$225.
2. Buy a similar used scope from Philips or HP at the flea market for \$200.
3. Buy a new Tektronix TDS-210 60 MHz digital storage scope for \$995.

The scope is the single most important piece of test equipment in the shack. Make sure it is reliable.

Personally, with \$1000 to play with, I would go with the new Tek scope. Its QRP size and 1 GHz sampling make it very nice.

Mike K1MG

-----Original Message-----

From: PGSPersEng@aol.com <PGSPersEng@aol.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Date: Sunday, February 15, 1998 11:11 PM
Subject: Scope: new or used?

>Could some of you experienced guys give me some advice on getting a scope?

>

>I've been nice to my wife for V-day, and I have a birthday coming up, so a
>scope might be in the plans. I'm getting more and more into homebrewing,
and

>having one would sure help me understand the circuits.

>

>Anyway, I found a place near Boston that sounds like its got a warehouse
full

>of used stuff as well as sell new stuff. Here are my questions:

>

>Is it better to get a new scope or a used scope? With a used scope, I'm not
>sure how I can determine if I'm getting a lemon that will crap out in a few
>months. I won't be using it for hours and hours every day, so any problems
>might not surface until I'm out of the 6-month warrantee period. In that
>sense, a new scope sounds better. However, the ones I can afford (budget of
>tops \$1k, looking at 1-MHz scopes -- do I really need that much bandwidth?)
>are the imports, and I fear that their quality won't match that of a Tek or
HP

>unit.
>
>Do I go with a new import or a used domestic unit? How can I tell a good
used
>scope from a piece of junk? Are there some easy tests to run?
>
>Thanks,
>Paul, AA1MI
>

Date: Mon, 16 Feb 1998 11:48:31 +0000
From: Roger Hightower <n7kt@earthlink.net>
To: kl7ixi@mailcity.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3958] Re: WWV controlled Clock Movement: \$ 28.95
Message-ID: <34E8278F.C3E4C498@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Sounds good, but where can you get the movement?

--

72/73, de Roger, N7KT

Date: Mon, 16 Feb 1998 13:58:01 -0500
From: "Buck, Preston D" <BuckPD@corning.com>
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>
Subject: [3959] FOX: N/T Fox Resched 20 Feb UTC - NOGLM
Message-ID: <6B137F61081DD0118DF600805FEAC5C5C8EC99@SILVER.CORNING.COM>
Content-Return: allowed
Mime-Version: 1.0
Content-Type: text/plain

Greetings All,

I need to reschedule my Thursday night (19 Feb EST) time as the fox.
Those pesky customers want me to travel to see them again :) My plan
is to reschedule to Sunday night local since there are no other foxes
for a couple of day either way. That way the hunters don't go through
too much withdrawal. It is also good practice for my upcoming VE exam.

So, move 19 Feb 98 1900-2100 EST (20 Feb 98 0000-0200 UTC) to 22 Feb 98 1830-2130 EST (22 Feb 2330 - 23 Feb 0230 UTC). I will be using the Yeasu 757GX at 5w feeding an inverted G5RV. I will start around 7.14 MHz and shift as needed, usually down. This date also conveniently avoids the solar disturbance that is expected on the 20th.

Note that this is an additional hour to make up for last week's antenna fiasco. I still don't know what was wrong with the antenna and why I couldn't tune down the SWR. All the connections are still good. My only thought is that I had a loop in the part I throw over the trees and/or the wind was doing something to it. The wind was gusting up to 40mph or so. I haven't checked the coax or tuner yet but it is high on the queue.

73

Preston, n0glm, Southern NY State

Date: Mon, 16 Feb 1998 14:53:34 -0500 (EST)
From: "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
To: qrp-l <qrp-l@Lehigh.EDU>
Subject: [3960] Removing nail polish from toroids?
Message-ID: <Pine.LNX.3.95.980216145002.8292C-1000000@w3eax.umd.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Well, well, doped a coil too soon.

T-44-7 toroid, glazed. Wrapped w/#26 enameled wire, and needing to be unwrapped (partially).

There are two nail polish removers - acetone- and non-acetone-based.

Q) Would either of these choices cause NO damage to the glazed toroid and enameled wire?

Anyone ever tried it?

Thanks!

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
* 6m 82 grids on 8w * DXCC WAS WAC * QRP-L #147 * QRP ARCI #9054 *
* <http://w3eax.umd.edu/~ham> * ARRL Life Member /Laurel ARC/UMARA *
*** 301-549-1022 h 301-982-1015 w *** 35 wpm HF mobile CW Neon ***

Date: Mon, 16 Feb 1998 11:14:52 -0800
From: Conrad <radman@best.com>
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>
Subject: [3961] RE: Scope, new or used...?
Message-ID: <01BD3ACC.1B2B3DC0@radman.vip.best.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: quoted-printable

Hi Paul,

That's a simple question with many possible answers :) I recently =
pondered this dilemma myself and got involved in researching both new =
scopes (primarily Digital Storage Oscilloscopes: DSO's) and =
used/refurbished scopes (primarily Analog scopes). I learned two things: =
1.) the future belongs to the DSO's & 2.) I can't afford a DSO !

I then began to work within the limits of \$1K and no less than 100 Mhz =
bandwidth. I talked with a lot of design and test engineers and found =
broad agreement that the TEK and HP "analog classics" are a solid value =
provided they've been refurbished and calibrated. A guarantee is nice, =
but anything greater than a 6 month guarantee seems to increase the =
price considerably.=20

I then contacted Test & Measurement renting/leasing companies and =
brokerage houses looking for used scopes. The TEK 465 and 465B (465 with =
DM-44 digital meter option) satisfied my present requirements. (The 465 =
was arguably the most popular scope ever produced... thus, you're =
assured a large reservoir of parts and services in the used product =
sector.) They go for \$350-\$800 depending on condition, documentation, =
probes/no-probes/calibration and guarantee. I found a T&M lease company =
that was having a "liquidation sale" on older test instruments. I picked =
up a very clean TEK 465B with full documentation (service and =
calibration) and a fresh calibration sticker for \$200! This company gave =
me a 5 day "ROR" or "Right of Return." I bought it immediately! It's =
been an excellent scope... a real pleasure to use! I may keep it =
forever!=20

Also... there are numerous "one man" operations that refurb and =
calibrate the classic TEKs. That's another way to buy a good instrument. =
Find a retired engineer who refurbishes and calibrates them as a retirement =
business. There are quite a few of these guys around on the west coast =
and should be some near Boston as well.=20

(If you **absolutely** have to have a new scope... take a look at Hitachi. =

They're doing a great job with analog scopes.)

Meanwhile, I've started a savings account for a new TEK DSO... hmmm, =
maybe next year :)=20

Just my 2 cents,=20

72 -- Conrad -- nn6cw.

Date: Mon, 16 Feb 98 12:21:55 MST
From: af852@rgfn.epcc.Edu (William R Colbert)
To: sjolin@swbell.net, qrp-l@Lehigh.EDU
Subject: [3962] Re: QRM from RTTY
Message-ID: <9802161921.AA11857@rgfn.epcc.Edu>

Dave, thanks for the reply. I apologize to the RTTY fellows and those other ops that do operate with good practice. I should not have lumped all together as I DO know most if not all RTTY guys are very similar in their habits as cw ops. I do have some monitoring capability for both RTTY and tor but do not choose to use it. The ones I have seen on both 30 meters in the 10.123.9, 122.9, 121.9 120.9 and 119.9 all have amateur calls with a kc6, ke6,ke4 and a couple of other fairly recently issued calls. I am aware of the commercial or so called commercial stations that do come on, mostly from South America or Africa as well as the commercial RTTY from Germany on 10.101, possible U.S. Navy on 10.104 from Spain, unknown RTTY on 10.105, General Pacheco Radio with commercial phone calls to Antartic region from Buenos Aires on 10.107, Spanish speaking fishing boats (some with square grouper catches) on 10.101, 10.112, 10.110, 10.111 and 10.117. Sure doesn't leave much room for cw operations, especially when the tor stations start in below 10.125. Of course, I guess one could start cw qso's in the recommended digi part of the band above 10.125 as the range is open with no qso's or transmissions noted from about 10.127 (rtty on 10.130) all the way up to 10.142, where the packet stations are. I did hear over the weekend a couple of cw qso's trying to start above 125 and the tor guys soon ended that. So much for my observations, and I guess the best way to handle that is to see what the operations times are for those and reset my clocks to be on when they aren't. Means I would miss a bunch of otherwise nice qso's, tho. 73 all

--
Ray Colbert, W5XE

00TC 3618, SOWP 1064M
El Paso, Tx (Far West Texas)
(also: v31xe@dzdn.com)

Date: Mon, 16 Feb 1998 11:31:35 -0800
From: W7LS <w7ls@blarg.net>
To: w6toy@pop.erols.com
Cc: qrp-1@Lehigh.EDU
Subject: [3963] Re: QRP in the Mountains...
Message-ID: <34E89417.3362@blarg.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

"higher is better?" True, when you are trying for a low angle of radiation to yak far distances. If you want to maintain contact with a local station (under a hundred miles or so) from your outting, I'd advise a LOW antenna for vertical radiation. My experience and those of others that have tried it is that a 1 watt NN1G cw transceiver operating off of a handfull of AA cells into a dipole, chest high off the trail, will give reliable communications over 60-100 miles during the day on 80 meters. Go higher, up to about 30 feet for maximum local signals. Above that and the angle of radiation lowers for better dx.

So, 'higher IS better', if you want dx. As someone here pointed out, the British military uses this mode of communications up in the fjordes in Norway and other Scandanavian countries, because of their topography. VHF doesn't work at all, because there is something in the way, no matter where they are trying to talk to. They use what is called NVIS (Near Vertical Incidence Skywave) to great effect.

Oops! Didn't mean to ramble.

73 de Jim, W7LS

Bruce Muscolino wrote:

>
> Luke,
>
> You're fighting two, or maybe three problems -- low power, untested
> antennas, and bad band conditions (you figure out which one is number
> three!). The first rule of antennas is the bigger the better. The second
> rule of antennas is the higher the better. The third rule of antennas is
> don't count on any antenna you haven't tried before.
>
> Wire is probably your best bet in an area such as you describe. It's light

> can launch the wire directly. Both methods work, but using fishing line is
> probably more forgiving if you hit the wrong branch. Oh, did I mention the
> trees? Sorry, but you'll need some tall trees too!
>
> Hope this helped.
>
> 73

Date: Mon, 16 Feb 1998 12:39:13 -0700
From: "Caro, Carlos" <carlos.caro@lmco.com>
To: "'qrp-1@lehigh.edu'" <qrp-1@Lehigh.EDU>
Subject: [3964] Test equip.
Message-ID: <22C29700E1CFD011920900608C14D84B3F72AC@cos141-gate55.ccs.lmco.com>
MIME-version: 1.0
Content-type: text/plain

Paul,
I agree with Conrad in that a used, well calibrated scope like the HP465
is a better buy for some one with a limited budget. (As most of us are)
I personally would buy the basic scope and save my pennies to buy a
spectrum analyzer attachment for the scope. If you are into RF (ie
amps, filters, PA's and oscillators) then nothing will show you what is
really going on like an SA.
Even a good scope will show a nice sine wave when the harmonics are only
18 to 25 dB down. The SA will let you see at least 60-70 dB. The Digital
multimeter is available at reasonable prices and can be taken out to
where you need it without having to lug the scope.
just my opinion,
Regards Carlos #1333

Date: Mon, 16 Feb 1998 14:37:02 EST
From: KB90CE@aol.com
To: qrp-1@Lehigh.EDU (Low Power Amateur Radio Discussion)
Cc: nq2rp@juno.com
Subject: [3965] Re: Knightlite SMiTe
Message-ID: <6cbb1d3a.34e89560@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

OKAY....OKAY....I GIVE UP!

What is the URL for Knightlight? I used the search engine @ www.search.com and it gave me <http://RTPnet.org/~knights/kltech.html> I tried going there but got the 404 instead. Please help....I want to throw bundles of money at these people if I can ever get there!

72/73 de kb9oce (Mike Truax)

BTW...shouldn't it be 74? You know....high-powered best wishes from a low-powered station. Think about it.

Date: Mon, 16 Feb 1998 11:36:23 -0800
From: W7LS <w7ls@blarg.net>
To: qrp-1@Lehigh.EDU, wd5dhk@hotmail.com
Subject: [3966] Re: QRP in the Mountains...
Message-ID: <34E89537.23FA@blarg.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, Ray. I tried and end fed half wavelength on 80 without a counterpoise and it was a disaster. I suspect and have heard that you need at least a small counterpoise to make them work. Anyone else have the same experience? 73 de Jim, W7LS

Ray Lowe wrote:

>
> One case where a counterpoise will not be needed on an
> end fed wire is if you can make the antenna a multiple of
> 1/2 wavelength long. This basically makes your antenna a
> zepp fed dipole. I use this antenna fairly often supported
> by a kite. The only shortcoming is the bands need to be
> harmonically related for this to work. If not, then it may
> be time for the radials to be pulled out for those bands.
> good luck with your setup.
>
> 72/73
>
> Ray Lowe
> WD5DHK
> Lancaster, Tx (near Dallas)
>
> -----
> Get Your Private, Free Email at <http://www.hotmail.com>

Date: Mon, 16 Feb 1998 14:39:50 EST
From: wa8rxi@juno.com (Rick Arzadon)
To: foxes@theriver.com
Cc: qrp-1@Lehigh.EDU
Subject: [3967] Re: elmer101: FAQ is up
Message-ID: <19980216.194447.8183.1.WA8RXI@juno.com>

I SECOND THE MOTION!
Nice work Mike
72, Rick Arzadon - WA8RXI Taylor, MI.
[QRP-L #1368][ARCI #9050][MI-QRP #587]

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 16 Feb 1998 14:39:50 EST
From: wa8rxi@juno.com (Rick Arzadon)
To: ham@w3eax.umd.edu
Cc: qrp-1@Lehigh.EDU
Subject: [3968] Re: Removing nail polish from toroids?
Message-ID: <19980216.194447.8183.2.WA8RXI@juno.com>

Scott,
My method was to CAREFULLY remove the coil (L-114) and unwind, clean
toroid
and rewind.
Also, polystyrene Caps (C-200) don't like nail-polish all that well. I
had to replace
it because of my overuse of the clear polish...

72, Rick Arzadon - WA8RXI Taylor, MI.
[QRP-L #1368][ARCI #9050][MI-QRP #587]

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 16 Feb 1998 15:44:02 -0500 (EST)
From: "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
To: qrp-l <qrp-l@Lehigh.EDU>
Subject: [3969] Ten-Tec group purchase order to be placed tomorrow
Message-ID: <Pine.LNX.3.95.980216154014.8695D-1000000@w3eax.umd.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Tomorrow be the day!

Final tally - 34 people (including me) and 64 kits

I must be nuts, and am loving it,

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
* 6m 82 grids on 8w * DXCC WAS WAC * QRP-L #147 * QRP ARCI #9054 *
* <http://w3eax.umd.edu/~ham> * ARRL Life Member /Laurel ARC/UMARA *
*** 301-549-1022 h 301-982-1015 w *** 35 wpm HF mobile CW Neon ***

Date: Mon, 16 Feb 1998 14:42:10 -0800
From: LYN WILLIAMS <designserv@ipass.net>
To: KB9OCE@aol.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3970] Re: Knightlite SMiTe
Message-ID: <34E8C0C2.1630C74C@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

KB9OCE@aol.com wrote:

> OKAY....OKAY....I GIVE UP!

>

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> it gave me <http://RTPnet.org/~knights/kltech.html> I tried going there but got
> the 404 instead. Please help....I want to throw bundles of money at these
> people if I can ever get there!

Try <http://www.waterw.com/~knights/index.html>

73,
Lyn, W4WDN

Date: Mon, 16 Feb 1998 13:54:20 -0600
From: Kevin Muenzler <wb5rue@stic.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>, "'ham@w3eax.umd.edu'"
<ham@w3eax.umd.edu>
Subject: [3971] RE: Removing nail polish from toroids?
Message-ID: <01BD3AE2.61ED3F40@SA5399-5-29.stic.net>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

On ham@w3eax.umd.edu, Scott Rosenfeld [NF3I][SMTP:ham@w3eax.umd.edu] wrote:

> Well, well, doped a coil too soon.
>
> T-44-7 toroid, glazed. Wrapped w/#26 enameled wire, and needing to be
> unwrapped (partially).
>
> There are two nail polish removers - acetone- and non-acetone-based.
>
> Q) Would either of these choices cause NO damage to the glazed toroid and
> enameled wire?
>
> Anyone ever tried it?
>
> Thanks!
>
> * Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
> * 6m 82 grids on 8w * DXCC WAS WAC * QRP-L #147 * QRP ARCI #9054 *
> * <http://w3eax.umd.edu/~ham> * ARRL Life Member /Laurel ARC/UMARA *
> *** 301-549-1022 h 301-982-1015 w *** 35 wpm HF mobile CW Neon ***
>
>
>

I think that anything that you place on the coil to remove the nail
polish will remove the enamel from the wire. You might try GENTLY
heating the coil to soften the nail polish and then just peel the
wire away.

Kevin, WB5RUE

Date: Mon, 16 Feb 1998 12:01:08 -0800
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [3972] Re: FOX humble pie
Message-ID: <01bd3b15\$9f188c20\$309f5ecf@double_trouble.reliablemeters.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I kick myself when I realize I could have had two more calls in the log! My apologies to George K5VUU and Tim K5OI.

Mike K1MG

Date: Mon, 16 Feb 1998 14:01:17 -0600
From: Dave Sjolín <sjolin@swbell.net>
To: af852@rgfn.epcc.Edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3973] Re: QRM from RTTY
Message-ID: <34E89B0D.597F@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

William R Colbert wrote:

>
> Dave, thanks for the reply. I apologize to the RTTY fellows and
> those other ops that do operate with good practice. I should not
> have lumped all together as I DO know most if not all RTTY guys are
> very similar in their habits as cw ops. I do have some monitoring
> capability for both RTTY and tor but do not choose to use it.
> The ones I have seen on both 30 meters in the 10.123.9, 122.9, 121.9
> 120.9 and 119.9 all have amateur calls with a kc6, ke6, ke4 and
> a couple of other fairly recently issued calls. I am aware of the
> commercial or so called commercial stations that do come on, mostly
> from South America or Africa as well as the commercial RTTY from
> Germany on 10.101, possible U.S. Navy on 10.104 from Spain, unknown
> RTTY on 10.105, General Pacheco Radio with commercial phone calls to

> Antartic region from Buenos Aires on 10.107, Spanish speaking fishing
> boats (some with square grouper catches) on 10.101, 10.112, 10.110,
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> especially when the tor stations start in below 10.125. Of course,
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> qso's trying to start above 125 and the tor guys soon ended that.
> So much for my observations, and I guess the best way to handle that
> is to see what the operations times are for those and reset my clocks
> to be on when they aren't. Means I would miss a bunch of otherwise nice
> qso's, tho. 73 all
>

Ray, I see you have done some monitoring! <HI> While I like 30m,
recently my excursions to that band have been relatively brief to grab
some good dx that has appeared on the packet cluster or to avoid a
contest.

While the rtty/digital stuff can be a pain on 30M, I can keep it in a
narrow bandwidth in my receiver. The SSB, however, really tears up my
receiver. It would be great if we could eliminate it from the cw portion
of the band. Maybe some of us with rtty equipment ought to chat with the
KC6, etc. operating in the cw portion and suggest that they move a
little higher. If I hear them, I will give them a call.

73 de Dave, N0IT

Date: Mon, 16 Feb 1998 15:11:21 -0500
From: Paul Stroud <aa4xx@ipass.net>
To: QRP-L <QRP-L@Lehigh.EDU>, klqrp <klqrp@waterw.com>
Subject: [3974] 160M 100mW Beacon Summary
Message-ID: <34E89D69.E2C0C3A8@ipass.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Gang,

I was sure surprised to see the responses from the Sunday night
100 milliwatt 160 Meter beacon session. Thanks to everyone who
responded, whether you heard the beacon or not.

Of significant interest is that N3G0, who lives 7 miles west of my

QTH, copied the beacon with NO antenna connected to his rig. I'm not sure whether this says more about his ESP ability or the excellent groundwave conditions that exist between our path. Certainly, the extensive radial system (50 radials fifty feet long and 50 radials 100 feet long) must play some part in the groundwave propagation. Two additional groundwave, or mixed groundwave/skywave, reports were received: WB50AU/4, who lives 25 miles east and W4WDN who lives 12 miles south of my QTH. As expected, WB50AU/4, who lives further away, reported a much weaker signal (239) than either W4WDN (549) or N3GO (599+10).

A special thanks to W5JAY, AB4PP, W7LS, and K5ROV for their reports of "no copy" or "possible-but-not-sure" copy. These reports are just as important as the confirmed reports.

The following stations sent in confirming reception reports:
(Thanks, Guys!)

0030Z	WA1QVM	Joel	Concord,	MA	119	G5RV, QRP+
0038	WB50AU/4	John	Clayton,	NC	239	160M Inv L, NC303
			(John heard beacon on all 3 receivers)			R4B,
75A4						
0100	KA80KH	Rich	Somerset,	KY	339	
0100	N1QQV	Ken	Madison,	CT	329	Double-size G5RV
				TS-930S		
0141	W4WDN	Lyn	Willow Springs,	NC	549	80M Inv Vee at 75'
						TS-520
0215	N3GO	Gary	Raleigh,	NC	599+10	80M LL-fed dipole
						at 35 feet
0222	K1XS	Ken	Naugatuck,	CT	339	80M dipole at 25'
				FT-840		
1143	K9RQ	Dan	Michigan City,	IN	349	220' LL-fed dipole
						at 30', IC-706

I was impressed with the fact that most of the confirmations were made with 80M antennas low to the ground. If you've ever had the opportunity to do "A/B" switching between a resonant 160M antenna and an 80M antenna while listening on 160 meters, the difference in signal strength can be dramatic, although the atmospheric noise also increases, sometimes negating the benefit of the extra gain.

Things learned from this project:

1) Short verticals can be made to be every bit as efficient as their big brothers IF ground losses are sufficiently reduced and proper attention is paid to efficient matching.

2) Extensive radial systems are essential for high efficiency with shortened verticals. Fifty radials 50 feet long provided a feedpoint Z of 16 ohms. Adding fifty 100 foot radials decreased the feedpoint Z to 5 ohms, resulting in a ground loss of just 1 ohm or so.

3) Jerry Sevick's books on impedance matching had a lot to do with the success of this project. Available from Amidon, these books show how easy it is to construct transmission line transformers that match low Z feedpoints to 50 ohms.

4) Another critical point in the project was the need for radial wire. QRP scrounger extraordinaire AB4PP came thru with several hundred feet of twisted pair telephone wire. Without this contribution to the project,

the antenna would still be in the construction stage. Addition radial wire was secured from Fair Radio. They have a 5000' roll of twinzip 24 gauge (insulated and stranded) wire for \$30 plus shipping. This gives you a total of 10,000 feet of radial wire for \$30 bucks--by far the best deal I've come across. The plastic insulation strips easily and the wire doesn't tangle, making it ideal for radial use. Part # is 2X24-5K. Tel # (419) 223-2196. (Leave a roll for me :-)

Although the two conductors unzip just like twin lead extension cords, I left them together. This way, by cutting 25 lengths of 100 foot long sections, you end up with 50 radials!

The KnightLites look forward to working you on all the bands, including 160M, from the NC Outer Banks during the last weekend of March.

72,

Paul AA4XX

Date: Mon, 16 Feb 1998 13:09:17 -0700 (MST)
From: Joe Gervais <vole@primenet.com>
To: lenriquez@pacific.simoco.com
Cc: qrp-1@Lehigh.EDU
Subject: [3975] Re: QRP in the Mountains...
Message-ID: <199802162009.NAA23452@usr08.primenet.com>

Howdy,

Luke wrote:

>
> What types of Antennas do people use for QRP in the mountains. I've
> made two twips in the last 3 weeks and had miserable results. The
> first trip I had no contacts. The second I had one contact on 40M. I'm
> using a modified SLV (raised, coax fed) and tuned radials. I've been
> trying 20M and 40M, but with no luck.

Bear in mind what a SLV is - a base-loaded ground-mounted vertical. In general, a ground-mounted vert needs a good ground system to get the performance you seem to need. Unless you set up over a copper mine or sea marsh, ensuring a good ground system might be hard to do when backpacking. :) Plus the loading coil is causing losses. That's fine and the SLV works as advertised, but you have other options for backpacking QRP.

> My best results with QRP have been on a wire inverted-V on 80M, in
> a valley near a river. Maybe my poor results are due to being over
> 1000 meters above sea level and operating from terrain with steep
> slopes. Either the loading coil on the SLV is too lossey (yes I know
> someone emailed me saying get rid of the coil and use a twin-lead
> feed, by my ZM-2 hasn't arrived yet) or the radiation angle is not
> suitable. Should I be using a dipole, since conditions are not
> suitable for constant QRP DX contacts??

Steep-sloped terrain can be a **great** factor in your favor, assuming you're actually **on** the terrain and not trapped below it. :) I think AA7QU has some info on that, as does the ARRL antenna book and others. Examples usually involve a dipole.

Your mileage may vary, but I've had **great** results backpacking with both a dipole and a longwire. Often I find terrain that favors my antenna (per AA7QU's tricks). Last year for FYBO I was camped on a 7000' ridge that dropped off a thousand feet on either side. The dipole up there (in line with the ridge) kicked some serious RF butt. :) On my snowcamping trip, the dipole was up 25' in the trees, flat terrain. Still worked fine. Plenty of "local" (AZ, CA) QSOs.

The dipole-raising/coax weight was starting to annoy me though, so I recently bought a ZM-2 tuner (WAH00!) and am now using a longwire. It's a full wavelength on 40m (so 1/2-wave on 80m, two waves on 20m, etc). It works just ducky and I've lost the weight of the coax (I don't like RG-174, so RG-58/8X is as light as I'll go). Plus I only have to get one wire end up in a tree. ;-) I'm now playing with a 1/2-wave 40m wire (66+ ft) and hope to have results after my next trip. Shaving off that extra pound of wire....

So... for backpacking, a 1/2-wave 40m 18-ga wire and ZM-2 tuner. I also use a 33-ft counterpoise underneath - haven't tested to see if it makes a difference yet. But it's a **very** lightweight, effective setup. Won't necessarily chase any hardcore DX with it, but I know it'll get RF out. Actually a many-wavelengths (4+w) longwire starts giving you some serious gain over a dipole, but that's another tale.... ;-)

Anyway, just my experiences. Ground-mounted verts in the field (I've tried one on an 11,000' saddle) are just too hard to ensure a good ground system for. They work, but not as good (in **my** experiences) as a longwire or dipole.

Assuming your've got a tree to hang one on. ;-)

Back to the work/email backlog. Just **had** to answer this one. Sorry!

Good luck and HAVE FUN!!!

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"It's hard to be unhappy when you have warm feet."
- Dave Rose, Fellow Snow Camper

Date: Mon, 16 Feb 1998 12:24:07 -0800
From: Bob Bayha <rbayha@ix.netcom.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Subject: [3976] Elmer101: FAQ is up
Message-ID: <34E8A066.406B921C@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I second the second! Great work organizing this project, Mike... much appreciated.

Bob, K6RKB

Date: Mon, 16 Feb 1998 12:32:28 -0800
From: k6hcj@juno.com (Marv Fagenson)
To: mgipe@reliablemeters.com
Cc: qrp-1@Lehigh.EDU
Subject: [3977] Re: Scope: new or used?
Message-ID: <19980216.123451.16566.1.k6hcj@juno.com>

I was lucky and fell into an HP 1740A scope a few months ago. 100Mhz BW so all I can ask for is the paper work (manual) and some inexpensive 10X probes.

Scope sure came in handy when I was entrenched in my 38 Special. BTW where's all the recent info on the 38 S or has it been forgotten? Any suggestions?

Marv Fagenson
Amateur Radio K6HCJ
k6hcj@Juno.com
Van Nuys, CA

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Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 16 Feb 1998 13:55:50 -0700
From: Tim Pettibone <tpettibo@NMSU.Edu>
To: mgipe@reliablemeters.com
Cc: qrp-1@Lehigh.EDU
Subject: [3978] Re: FOX humble pie

Message-ID: <3.0.2.32.19980216135550.006a6dc4@cnmailsvr.nmsu.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Mike:

No apologies needed on my end. I continue to learn. I know that I should have carefully listened for my call. I didn't, got sloppy and missed you. My fault and my apologies to you for not being one more in your log.

Tim K5OI

At 12:01 PM 2/16/98 -0800, you wrote:

>I kick myself when I realize I could have had two more calls in the log! My
>apologies to George K5VUU and Tim K5OI.

>

>Mike K1MG

>

>

>

>

>

>

Date: Mon, 16 Feb 1998 16:07:32 -0500 (EST)
From: Bruce Muscolino <w6toy@pop.erols.com>
To: QRP-L@Lehigh.EDU
Subject: [3979] Sam's Photofacts
Message-ID: <2.2.16.19980216164825.24670640@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Guys,

Please do not be so quick to offer copies of Sam's Photofacts. They are a copyrighted product. This means you can get yourself in major FEDERAL trouble making copies for anyone besides yourself! Don't want to rain on any parades, I'm just a guy who is hoping his copyrighted products will buy him a beer in 10 or so years!

73

Date: Mon, 16 Feb 1998 16:07:39 -0500 (EST)
From: Bruce Muscolino <w6toy@pop.erols.com>
To: Rattray@gpfn.sk.ca
Cc: QRP-L@Lehigh.EDU
Subject: [3980] Re: elmer101: rf probe
Message-ID: <2.2.16.19980216164833.2467dd60@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 10:22 AM 2/16/98 -0600, you wrote:

>I was looking at the rf probe in the 1997 ARRL Handbook with the thought
>of putting one together for the elmer101 course...I see we need to have
>a meter with an 11 megohm input according to the text...so if we don't
>have an 11 megohm input meter, I guess we'll have to get one? or is it
>not all that critical?...thanks & 72 - Bruce(VE5RC) -

>

Bruce,

Back in the "Good Old Days" there were VOMs and VTVM. VOMs had low input impedances, on the order of 1K or less. The VTVMs has input impedances on the order of 11 Megohms. The difference between them is is the load they place on the circuit under test. The VOM loads a circuit much more heavily than a VTVM. To measure the voltag levels at the output of an RF Probe you want the minimal circuit loading involved. Therefore the need for !! Megohms or better.

The good news is that most DVMs fit this description, even the cheap ones.

73,

Bruce

Date: Mon, 16 Feb 1998 16:03:55 -0500
From: Al Moyle <moyle@essc.psu.edu>
To: qrp-l@Lehigh.EDU
Subject: [3981] Chuck's Spice Pointers
Message-ID: <3.0.32.19980216160354.00637540@pop3server.essc.psu.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Folks,

In case anyone is interested, the pointer to Spice for Linux that Chuck

posted a while ago appears to be busted ...

http://www.primenet.com/~lovelace/rf_share.htm

Looks like a better choice for the Linux version. Follow the link "LINUX Circuits Archive" ... spice3f4.tar.gz is available along with a bunch of other stuff.

73,
Al N3KFL

Date: Mon, 16 Feb 1998 16:27:32 -0500
From: Hank Kohl K8DD <k8dd@contesting.com>
To: qrp-1@Lehigh.EDU
Subject: [3982] Dayton Hamvention - Days Inn South Rooms.....
Message-ID: <3.0.1.32.19980216162732.0077ad4c@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The e-mail went out to everyone regarding the room reservations at Days Inn for the Dayton Hamvention 1998.

If you you didn't get one and should have, let me know. Several e-mail address' have bounced so far!

If you would like a room, let me know and I'll put you on the standby list.

Any room reservations not confirmed by March 15 will go back in the "room pool" and be given to the standby list.

The room list and the reservation list is located on:

<http://www.geocities.com/CapeCanaveral/2844/98rooms.htm>

73 Hank K8DD

*/	Hank Kohl	K8DD	k8dd@contesting.com
*/	ARRL TS		(k8dd@tir.com)
*/	G-QRP	ARRL/LM	QCWA/LM QCAO/LM
*/	QRP-ARCI	- Director	MI-QRP - Vice Pres.

*/ <http://www.QRPARCI.org>
*/ <http://www.geocities.com/capecanaveral/2844/miqrp.htm>

Date: Mon, 16 Feb 1998 14:59:54 -0700
From: ji3m@maxwell.com (James R. Duffey)
To: Rattray@siast.sk.ca
Cc: qrp-1@Lehigh.EDU
Subject: [3983] Elmer 101: RF Probe Output Impedance value
Message-ID: <v02130502b10e616ef478@[192.31.66.158]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Bruce - In case no one else has answered your question;

"I was looking at the rf probe in the 1997 ARRL Handbook...I see we need to have a meter with an 11 megohm input according to the text...so if we don't have an 11 megohm input meter, I guess we'll have to get one? or is it not all that critical?"

In my handbook, the RF probe has a 4.5 (?) MOhm resistor in series with the output. This is specified for a 10 MOhm input resistance (DC) meter. I don't have the reference here so I may be wrong though.

The output resistor in the probe forms a voltage divider with the input impedance of the voltmeter. This yields an indicated value on the meter close to the RMS value of the quantity the probe is attached. In plain English; the output is divided by $10/14.5 = 0.69$ which is close to the square root of 2 divided by 2 (about 0.707...). If your meter has an input impedance that is different than 10 MOhm you can change the output resistor to give you the correct ratio. By the way, this is not the preferred way to do true RMS measurements, but that is a subject for another time. I suspect it will be good enough for us.

I believe that 10 MOhm is sort of a "standard value" for the DC input resistance of good meters, either digital or VTVMs. If you have a meter with a value substantially lower than this it may load the circuit under measurement too much. You may wish to look into a different meter, or making one of your own from a JFET amplifier and a 1ma movement. Circuits are in all the older handbooks, I don't know if the new ones still carry such a circuit or not. I will check.

If you are only interested in relative measurements then I would say don't bother with changing the resistor. I am not sure what the RF probe will be used for in the project, but I would suppose it will be used to tune up oscillators and amplifiers for maximum smoke, errr make that maximum

output. Maybe one of the official Elmers can respond as to the accuracy needed.

By the way, this is one area in which my new (to me) Keithley outshines the old Simpson. The Keithley has a DC input resistance of 10 MOhm, the old Simpson a value of 20,000 Ohms per volt.

I hope that this is of some help. I have posted it to the entire list since it may contain some useful value to others. - Duffey KK6MC/5

James R. Duffey (505) 764-3143
Principal Scientist (505) 843-7995 (FAX)
Maxwell Technologies Inc/Albuquerque Division
Suite 300
2501 Yale Blvd SE
Albuquerque, NM 87106

Date: Mon, 16 Feb 1998 15:04:56 -0700
From: Phil <k6ls@prolynx.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [3984] Re: WWV controlled Clock Movement: \$ 28.95
Message-ID: <34E8B808.4D6B31C5@prolynx.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Michael Fletcher wrote:

>
> It is supposed to be very accurate but please follow the
> instructions to the letter before pulling the pin.
> ...

Now where have we heard this before? (well, maybe some of us ;-)

--

73 de Phil, K6LS

k6ls@qsl.net <or> k6ls@amsat.org
http://www.qsl.net/k6ls
http://www.prolynx.com/k6ls
DM79oq, Arapahoe County, Colorado
ITU zone 7, CQ zone 4
QRP-L #612 NorCal #824

CQC #471 ARCI #8866

Date: Mon, 16 Feb 1998 15:09:26 -0600
From: "Marshall Emm" <mgemm@mtechnologies.com>
To: qrp-1@Lehigh.EDU, cqclist@lists.csn.net
Subject: [3985] New Product Announcement
Message-ID: <199802162208.PAA02878@edison.chisp.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

The Hi-Mound HK-705 Straight Key is now available from Milestone Technologies Inc.

"Little Brother" of the famous HK-708, Model HK-705 is smaller, lighter, and less expensive. The design is virtually identical to the 708, but the 705 is only 5" inches long by 2-3/8" wide and weighs a mere 4.25 Oz.

Since it has the same "knob-over-base" design as the 708, you can place it on your desk and use it without screwing it down or holding it. Perfect for mobile and portable operation, it's large enough that you can use it comfortably, but small enough to fit in a pocket. \$39.95

Call 800-238-8205 to order using your credit card, or send your check or money order for \$39.95+\$5.00 s/h to
Milestone Technologies, Inc.
3140 S. Peoria St. Unit K156
Aurora, CO 80014

A picture is available at <http://www.mtechnologies.com/hk.htm> and you can order on-line.

73
Marshall Emm
N1FN/VK5FN
n1fn@mtechnologies.com
Milestone Technologies
Software, kits, tools...
<http://www.mtechnologies.com>
(303)752-3382
--

Date: Mon, 16 Feb 1998 14:07:46 -0800
From: Andreas Junge <andreas@atltech.com>
To: qrp-1@Lehigh.EDU
Subject: [3986] RE: QRP in the Mountains...
Message-ID: <01BD3AE4.427F5EC0.andreas@atltech.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Go and get the coil from Vern, W6MMA that works with the SLV. It works
muuuuuuch better than the twin lead coil ! I am using the 80-10M Version as
my only antenna with good results. I also use tuned multi band radials (5
wire rotor cable from RS).

You can find more info on the NorCal website :
<http://www.fix.net/~jparkers/stlsvert.html#rpt4>

72,

Andreas, KF6NEB

Date: Mon, 16 Feb 1998 17:24:07 EST
From: nq2rp@juno.com (B/BAMS Club Station)
To: qrp-1@Lehigh.EDU
Subject: [3987] HF Mobile Antennas (Long)
Message-ID: <19980216.172220.4671.0.nq2rp@juno.com>

Effective HF Mobile Antennas

One of the problems with HF mobile operation, especially on 160, 80 or
40 Meters is antenna efficiency. The problem has been addressed in
numerous publications for years, including, but not limited to the
ARRL

"Mobile Manual", the ARRL "Radio Amateurs Handbook", Editors &
Engineers

"Radio Handbook" and many others. If you are operating below 21 MHz,
it

is all but impossible to run a full-sized mobile antenna, so some sort
of loading coil(s) will be needed.

Loaded antennas fall into three categories, Base-Loaded, Center-Loaded and Continuously-Loaded. The Base-Loaded antenna is the easiest to construct with the tools available to the "average" ham, but shows a lower efficiency than the other designs. Working with an 8-foot whip, typical of the stainless-steel whips sold for 11 or 10 Meter

operation,

a loading coil with an inductance of 1.1 uH to 350 uH would be needed for the 160 - 12 Meter bands, the lower the frequency, the larger the coil.

The radiation resistance of the 8-foot whip falls in a very low range, running from 0.08 ohms on the 160 Meter band to 16.1 ohms on the 12 Meter band as shown in the table below. If you have an ATU with a

wide

enough range, you COULD feed the whip directly with the ATU through a VERY short connection. At least one company (SGC) makes a mobile antenna system that does just this, mounting the ATU in a weatherproof box right at the antenna. It's kinda pricey though, running more than the price of some rigs. But, it CAN be done, 17 - 12 Meters for sure, and maybe even 20 Meters.

Here's the electrical length (in degrees) and the Radiation resistance (Rr) for an 8-foot vertical, listed in tabular form:

F(MHz)	L(Deg.)	Rr
1.8	5.27	0.08
3.6	10.53	0.34
7.1	20.78	1.31
10.1	29.55	2.65
14.1	41.26	5.17
18.1	52.96	8.52
21.1	61.74	11.58
24.9	72.86	16.12
28.1	82.22	20.54

Now, the feedpoint impedance will NOT be the same as Rr. Ground losses,

feedline losses and so on have to be factored in. The 10 Meter value is

a good example for this point. An 8 foot whip, mounted to the average car/truck will show a feedpoint impedance of 30 - 45 ohms in the real world, and an acceptable SWR even without the use of an ATU. Mucho DX has been worked on the 10 Meter band with nothing more than this

8-foot

whip, and before the advent of solid-state gear, the SWR was almost never considered. For that matter, my first HF mobile (a Heath

HW-100)

would handle a 3:1 load with the "stock" Pi-Net tuning. Tube rigs are/were very forgiving for loads.

Here's a "sketch" of a Base-Loaded mobile antenna:

	The "Basic" Base-Loaded mobile antenna.
o	
	The base loading coil has to be mounted
	on a strong enough mount to take the
8' WHIP	normal flexing seen during mobile
	operation. Typically, the spring for
	the whip mount would be above the coil,
	allowing the whip to move without putting
)	undue stress on the coil. Some commercial
(COIL	coils from the 50's had a bandswitch on
)	coil allowing one to switch between the
0	taps on the coil quickly.
----[0]----	
MOUNT	

Here's a "sketch" of a Center-Loaded mobile antenna:

(The "Bugcatcher is a Center-Loaded antenna)

o	
TOP SECTION	Typically, the bottom section is made of
(4' - 6')	a larger diameter rigid section of tubing.
	EMT, also known as conduit, makes a rugged
----- ----- HAT	makes a rugged bottom section, and the heavy
)	galvanizing not only protects it from the
(COIL	elements, but allows one to solder directly
)	to it for an improved connection. The zinc
BOTTOM	in the galvanized coating is a moderately
SECTION	good conductor, having a conductivity of
(2' - 4')	26 - 32% IACS. Copper, for comparison, has
0	a conductivity of 100% IACS. Only silver is
----[0]----	better.
MOUNT	

While pure aluminum has a conductivity of 61% IACS, the common alloys are in the 28 - 35% IACS conductivity range, so galvanized steel is very close to aluminum for RF purposes, and is much stronger (but also much heavier). For RF applications, only the zinc coating need be considered due to the skin effect.

NOTE: The "Hat" is a capacity hat, and is optional. It WILL greatly improve the performance on the 160 - 40 Meter bands as it reduces the size (and losses) of the loading coil.

If you look over on Frank, G3YCC's homepage, he has some compact Base-Loaded antennas shown for mobile or portable operation. Radio Shack has a 6-foot telescoping whip in the \$4.00 price range, and it would lend itself to a portable base-loaded whip, or the top section of a Center-Loaded portable antenna. The metal in the whip is too thin & flimsy for mobile and/or fixed-station service. A portable dipole would be a possibility with two of these whips and a suitable set of loading coils. Ham Radio magazine had just such an antenna years ago, but I have long since lost (lent out?) the copy, and can't remember the author.

If you want to "Roll your own" Base- or Center-Loaded mobile antenna, here's a chart from the "Mobile Manual" and others for a starting point on your coil values. REMEMBER! Make the coil BIG, with FAT WIRE! Keep the losses down as much as possible! (I have added the 30, 17 and 12 Meter bands to the original list...)

BASE LOADING COILS
(For an 8-foot whip)

F(MHz)	L(uH)	Z(Ohms)*	
1.8	345	23	* Based on a coil Q of 300, ground losses of 10 ohms and coil resistances of 1 to 13 ohms. Your actual impedance will vary.
3.6	86	16	
7.1	21	15	
10.1	10.5	13	
14.1	5.0	12	
18.1	3.0	14	
21.1	1.3	16	
24.9	0.9	20	
28.1	None	36	

CENTER LOADING COILS
(4-foot top and 4-foot bottom sections)

F(MHz)	L(uH)	Z(Ohms)*	
1.8	700	40	* Based on a coil Q of 300, ground losses of 10 ohms and coil resistances of 1 to 13 ohms. Your actual
3.6	175	22	
7.1	45	20	
10.1	22	20	

14.1	12	20	impedance will vary.
18.1	7.3	24	
21.1	5.3	30	
24.9	3.8	32	

NOTE: If you use a capacity hat, the loading coil value will be reduced by as much as 15%. Use these as starting points. Make the coils larger than necessary and trim to resonance.

As you can see from the chart, the Center-Loaded whip will be easier to match, but the construction is not as easy to duplicate in the average "home-shop". There are a number of homebrew "Bugcatcher" designs out there, W6RCA's comes to mind right away. If you picked up one of these "High-Power" CB mobiles that go under the names "Stinger" or "Interceptor" at the truck stops, you would have all of the hardware you would need to build a hefty Center-Loaded antenna. They are sold in the \$40 to \$80 range though, not exactly cheap. Keep an eye out at yard sales and hamfests for good deals.

Get in there & BUILD SOMETHING! See you from the mobile !

72/73, Keith, WB2VUO at the keys at B/BAMS
 NQ2RP - QRP-L # 1294, Byron/Bergen AMateurS Club Station
 Listen for our 10 Mtr Milliwatting Beacon: 125 mW @ 28.287 MHz
 "Our night light runs more power than our Rig!!!"

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 Or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 16 Feb 1998 17:54:26 EST
 From: ALK0FRP@aol.com
 To: QRP-L@Lehigh.EDU
 Subject: [3988] K0FRP Contest Handicap
 Message-ID: <f27c3ebe.34e8c3a4@aol.com>
 Mime-Version: 1.0
 Content-type: text/plain; charset=US-ASCII
 Content-transfer-encoding: 7bit

Feb 22 is the time for the Winter CQC Sprint. 2200z to 0400z
 An official announcement will follow by CQC Contest Official

I will be handicapped by using my crystal controlled ONER transmitter.
Will use my TS-850 for receiver and my aluminum on the tower.

Can't pull these crystals much so will be on 7.039, 7.040 7.042 and 14.062.
Have no crystals for 15m unless I try 21.093 3x 7.031 a bit high???

Should be at about 1 watt , full power is 2w but a variable supply will get it to 1w.

Listen and call CU Sunday
AL K0FRP

Date: Mon, 16 Feb 1998 16:54:15 -0600
From: "George Edwards" <gedwards@OnRamp.NET>
To: <tpettibo@nmsu.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [3989] Re: FOX humble pie
Message-ID: <199802162258.QAA17813@mailhost.onramp.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Mike....ditto from me.....we made the assumptions.....not you. There is no way you can know that double or triple reports are going on and ending at exactly the same time!....It's our job to get the confirmation and know it means us!

Ed/K5VUU.....George Edwards

> From: Tim Pettibone <tpettibo@NMSU.Edu>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Subject: Re: FOX humble pie
> Date: Monday, February 16, 1998 2:55 PM
>
> Mike:
>
> No apologies needed on my end. I continue to learn. I know that I should
> have carefully listened for my call. I didn't, got sloppy and missed you.
> My fault and my apologies to you for not being one more in your log.
>
> Tim K5OI

>
> At 12:01 PM 2/16/98 -0800, you wrote:
> >I kick myself when I realize I could have had two more calls in the log!
My
> >apologies to George K5VUU and Tim K5OI.
> >
> >Mike K1MG
> >
> >
> >
> >
> >
> >
>
>

Date: Mon, 16 Feb 1998 15:34:08 -0800
From: Vic Rosenthal <rakefet@rakefet.com>
To: sjolin@swbell.net, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [3990] Re: QRM from RTTY
Message-ID: <34E8CCF0.1197A94F@rakefet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Dave Sjolin wrote:

> While the rtty/digital stuff can be a pain on 30M, I can keep it in a
> narrow bandwidth in my receiver. The SSB, however, really tears up my
> receiver.

I've often noticed this. The absolute WORST kind of QRM seems to be SSB: no matter how narrow your receiver bandwidth is, if you're within a couple of kHz of an SSB station, you're going to get creamed! At least most digi-stuff is relatively concentrated on two frequencies.

Lately, I've been hearing a new kind of stuff on the very bottom of 40 meters: a kind of wideband digital stuff that takes up about 3 kHz with a very loud GZZZZZZZZT GZZZZZZT GZZZZZZT. This is certainly a signal and not some kind of manmade noise, but I don't know what it is; aliens perhaps?

Vic K2VC0

Date: Mon, 16 Feb 1998 18:38:46 EST
From: n7mfb@juno.com (Bill Todd)
To: af852@rgfn.epcc.Edu
Cc: qrp-1@Lehigh.EDU
Subject: [3991] Re: QRM from RTTY
Message-ID: <19980216.153423.8047.2.n7mfb@juno.com>

On Mon, 16 Feb 98 08:55:22 MST af852@rgfn.epcc.Edu (William R Colbert) writes:

>I put the blame for a lot of this back to the ARRL and other national
>organizations in pushing the lower frequency operations of RTTY/digi
>stations.

Ray -

Be sure to have your flame suit on to receive the ever-present "ARRL Love It Or Leave It" posts. And of course, these posts will be sent to "all", rather than to you personally.

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Date: Mon, 16 Feb 1998 15:54:47 -0800
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)
To: qrp-1@Lehigh.EDU
Subject: [3992] The NorCal Version of the Herring Aid 5 LIVES!!
Message-ID: <3.0.1.32.19980216155447.00763594@dpol.k12.ca.us>
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I finished the Herring Aid 5 prototype on the board that Gary Diana made for me Thursday night. Plugged in the power, hooked up the antenna, put the headphones on and expected to hear that wonderful hissing sound that you expect from a receiver. Nada, nothing!! Egads, it doesn't work. I looked at the parts, check it twice, checked the toroid connections, but alas, nothing helped. What to do?? I called Dave Fifield, trouble shooter extroirdinaire and a good friend. I asked him if he would have time to look at the rig if I were to drive over to San Jose this weekend. Dave is a good friend and can't say no, so he said sure come on over, but it has to be about 4 PM or so on Sunday as he had a huge list of honeydo's for the XYL to finish.

With that in mind, I packed up the board, the schematic, the layout, the parts placement drawing and the original article and drove the 125 miles one way to Dave's house. (One advantage to having lived in western Kansas, distances don't mean a lot. Ask anyone who has lived in west Texas, the Oklahoma Panhandle or anywhere out west. We are used to driving.) When I arrived Dave greeted me at the door and we sat out to debug the receiver (Dave doing the work, I was watching and listening as he very patiently explained what he was doing and why).

One problem we had was this was a new layout, done by me, and it was not tested. I watched as the old master himself went to work. He told me that he was going to use the "Paul Harden, NA5N" method. He would start at one end of the schematic and check each section. I sat down and watched as Dave did the following.

First of all he checked for 12 volts and then for 9.1 volts on Q5. (The schematic calls for a 10V zener in series with a 270 ohm resistor, but Dave had suggested using a 9.1V zener in series with a 390 ohm resistor over the phone when I couldn't find a 10V zener.) Had the 12 volts, but oops, there was only 1 volt or so at the drain of Q5, which is the FET in the VF0. Dave turned to me and said, this is not good, we must have 9 volts or so. Something is loading down the circuit. He then checked the layout against the schematic, R16, D3, C22, R17 and D4 were all soldered in correctly and in the proper position. Dave had a bewildered look and asked where I had gotten the transistor. I replied that it came from my stash, but it was not the MPF102 called for but rather a J310. (I thought they were interchangeable, and as I was soon to find out, they are not always.) Dave replaced the J310 with an MFP102 and bingo, 9.1 volts, just as it should be.

Next he said that we would see if the VF0 was VF0ing. He hooked up the scope, and nothing, not a sine wave in sight. He looked at the circuit, checked all the parts and determined that the coil was wound out of phase, so he reversed the leads for L6, and again, like magic, bingo we had an oscillator. He measured the frequency, and it was at 6.8 MHz, which was a little low. It was easier to lower the capacitance in the circuit by changing a cap than it was to change the turns on the toroid, so Dave replaced a 39 pF with 5 pF and we measured the high end. Oops, now it was at 11.2 MHz for the high end. He looked at me, and I know that he knew, but he asked what value we should try next. I suggested 22pF as it was inbetween the two values that we tried. He soldered it in and voila, the

top end was about 7.8 MHz and using the trimcap he was able to set the bottom of the tuning range at 6.998 MHz, which was close enough for us. One thing, the 5 pF that we tried first was a regular disc ceramic, it drifted several hertz per minute, but when he replaced it with a 22 pF Silver Mica, the vfo was much more stable. The point is use NPO's, Silver Micas or Polystyrene's in VFO's not 20% disc ceramics.

Ahhh, now we had a vfo, and Dave hooked up the signal generator at 7.040 MHz and he listened for it. It was there!! But weak, very weak. The mds of the receiver was only at -80dB, not very good. Lousy in fact. Dave said not to worry, that we had some tweaking to do. The circuit has two tuned circuits that need to be peaked and are set by peaking a trimcap in each circuit. The first one came up very nice with two peaks, which is what you are looking for when you use a trimcap. Bruce Florip wrote a nice article on this in a past issue of QRPP. But the other one only had one peak. Dave explained that this meant that the circuit was not resonant at 7MHz. So he tried removing capacitance (again much easier than adding or removing turns) and it worked. Soon he had two peaks in the adjustment. He adjusted both of them back and forth, as they were interactive. Finally he was satisfied. Now, let's see what it does. Only -100 dB of mds. Terrible. Dave read the original article and saw that Jay Rusgrove got an mds of -130 dB!! Something was wrong.

Dave looked at the circuit, and then he asked about the transformers. Were they the same? No one was a 10K to 2K and the other was a 1K to 8 ohm. He checked them out for proper placement of the primary and secondary and they were correct. Then he asked if I was positive that I put the right transformer in the right place on the board. I wasn't so we checked the part numbers with a Mouser catalog, and sure enough, I had reversed them on the board.

Dave had me repeat after him, "Doug, I am a dummy. Doug, I am a dummy." That is supposed to exorcise the dummy demons or the badgers or something. Dave unsoldered the parts, exchanged them and tested the rig. Maybe -110 dB. But still something was wrong. Then Dave looked at the bias resistors on the 3 2N2222 transistors and he said, "Ah Hah! I see the problem." One of the bias resistors was 560 ohms instead of 5.6K, it does make a difference. He switched it out, and tested the receiver. He still wasn't satisfied. Then he sat down and studied the schematic. He decided that we weren't getting enough coupling at L3 and L4. This was one of the coils that was changed from the original Radio Shack modified part to a toroid. He rewound it and changed it from L3 at 45 Turns and L4 at 5 turns to L3 at 45 turns and L4 at 20 turns. He resoldered the toroid, and what a difference. Dave tested the mds, and it was at -123 or so. Very good for such a simple receiver. The rig works!! Thanks to Dave for doing such a neat job, and helping me to learn some more about trouble shooting. I can't wait for the Elmering sessions to begin.

The Herring Aid 5 files will be released soon. I will post to the net when it is time to send them out. 72, Doug, KI6DS

End of QRP-L Digest 1003
